DOCUMENT RESUME

ED 066 801 EA 004 438

AUTHOR	Graybeal, William S.
TITLE	Teacher Supply and Demand in Public Schools, 1971.
INSTITUTION	National Education Association, Washington, D.C. Research Div.
REPORT NO	RR-1972-R4
PUB DATE	72
NOTE	58p.
AVAILABLE FROM	Publications Sales Section, National Education Association, 1201 Sixteenth Street, N. W., Washington, D. C. 20036 (Stock No. 435-25498, $2.00, quantity discounts)
EDRS PRICE	MF-$0.65 HC Not Available from EDRS.
DESCRIPTORS	*Beginning Teachers; Curriculum; Educational Research; Statistical Data; *Surveys; *Tables (Data); Teacher Education; *Teacher Shortage; *Teacher Supply and Demand

ABSTRACT

This 24th annual NEA survey of public school teacher supply and demand estimates that the supply of qualified teachers is generally adequate, although shortages exist in some areas. To supplement these estimates, surveys were made in State departments of education and in 66 of the country's 83 largest school systems. Shortages occurred in industrial arts, special education, mathematics, trade-industrial-vocational-technical courses, remedial reading and speech, and in distributive education. Assignments most frequently reported by the large school systems as having an oversupply of qualified applicants include social studies, Language Arts, physical and health education (male teachers), elementary level, foreign languages, business education, home economics, and art. Tables present comparative data by State and subject area. (A related document is ED 048 653.) (MLF)

ED 066801

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RESEARCH REPORT 1972-R4

Teacher Supply and Demand in Public Schools, 1971

RESEARCH DIVISION - NATIONAL EDUCATION ASSOCIATION

EA 004 438

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Research Report 1972-R4: *TEACHER SUPPLY AND DEMAND IN PUBLIC SCHOOLS, 1971*

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FOREWORD

THE NEA RESEARCH DIVISION constantly endeavors to improve the research techniques, the accuracy of data, and the usefulness of its reports. This 24th annual survey of the supply and demand for public-school teachers continues this tradition.

Continuing the changes initiated in the 1966 edition, the 1971 report provides two estimates of the demand for new teachers: one based on achievement of minimum quality in educational staffing, and one based on trends toward improvement in the quality of the teaching staff. Also, the present study continues the estimation of the demand for beginning teachers as a subgroup of the demand for new teachers.

Users of this report should interpret the estimates only in general terms because additional study is needed on (a) the factors influencing personal decisions on entering, interrupting, re-entering, and leaving the teaching profession; (b) the characteristics of potential teachers and the assignments given to new teachers; and (c) the influence of financial support for continued improvement in education upon the components of teacher supply and demand.

This report contains a summary of teacher supply and demand conditions reported in late summer 1971 by respondents in state departments of education and in 66 of the country's 83 largest school systems. These two special surveys were designed to supplement the national estimates, to identify the status of teacher supply and demand in various types of school systems, and to review the conditions influencing teacher supply and demand in late summer 1971. The results of these inquiries are given on pages 6 and 7 of this report. A preliminary summary of data contained in this report was released in early September 1971.

The NEA Research Division appreciates the invaluable assistance of the personnel in state departments of education and teacher preparation institutions who participated in this study. Their willingness to gather and provide basic data and their continuing interest in this important facet of professional analysis and planning make this report possible. The Division also wishes to thank the state and local school officials who so willingly responded to the supplemental inquiries on the shortage of teachers.

This report was prepared by William S. Graybeal, Assistant Director, with the assistance of the Statistics Section of the Research Division.

GLEN ROBINSON
Director, Research Division

HIGHLIGHTS

- A record 317,604 persons completed teacher preparation programs with at least a bachelor's degree between September 1970 and August 31, 1971, an increase of 7.1 percent over the number reported for the previous year.

- The estimated number of new teachers needed to attain minimum levels of quality staffing (Quality Criterion Estimate of teacher demand) in 1971 comprises 440,900 in elementary schools and 352,500 in secondary schools, a total of 793,400.

- The number of new teachers needed in 1971-72, as projected from trends in the improvement of staffing characteristics in recent years (Adjusted Trend Criterion Estimate), comprises 82,800 in elementary schools and 106,000 in secondary schools, a total of 188,800.

- The Quality Criterion Estimate of demand exceeds the expected supply of new teachers by 500,800, provided the turnover and re-entry rates of qualified experienced teachers approximates that of recent years. This shortage comprises 301,600 teachers at the elementary-school level and 199,200 at the secondary-school level.

- Based on the Adjusted Trend Criterion Estimate of demand, with allowance for the re-entry of qualified experienced teachers as in 1970-71, the supply is generally adequate, but shortages of beginning teachers are expected to continue in secondary-school mathematics, vocational-technical courses, sciences, and industrial arts.

- Two special surveys of appropriate officials in state departments of education and in 66 of the largest school systems in late summer 1971 show that as a whole the supply is adequate but shortages of qualified teachers are continuing in special education and in all of the assignments listed above.

- The supply of qualified former teachers desiring to re-enter teaching in fall 1971 (80,400 persons) is 16,900 to 27,400 larger than the number of positions estimated to be open to them.

SPECIAL SURVEYS OF TEACHER SUPPLY AND DEMAND

TWO SPECIAL SURVEYS were conducted in midsummer 1971 to obtain up-to-date information about (a) the direction of change, if any, in the factors which influence the supply and demand for public-school teachers; (b) the general status of supply-demand conditions in the states and major school systems; (c) the subject areas in which shortages seem to be most widespread; and (d) conditions in the fall of 1971 as compared with one year earlier. This information provides a framework for interpreting the projections of teacher supply and demand in the regular study.

One survey was directed to the person having responsibility for teacher education and certification in each state department of education. These persons were asked to report their *general impression* of teacher supply and demand conditions in their state as of the last week in July. The second survey was sent to the 83 largest school systems (these systems enroll 50,000 or more pupils, and as a group employ one-fifth of all public-school teachers). Personnel directors in these systems were asked to report by each major assignment area: (a) the adequacy of the supply of qualified teacher applicants in their school systems for 1971-72, (b) whether they have had to employ persons with substandard qualifications, and (c) the number of unfilled positions in the last week of July 1971.

General Conditions Reported by States

State department of education officials in 48 states reported the general condition of public-school teacher supply and demand. Their assessment of how the total number of qualified applicants compares with the number of teaching position vacancies in late July 1971 was as follows:

- 24 states—shortage of applicants in some subject areas and an excess in others
- 11 states—some excess of applicants
- 13 states—substantial excess of applicants.

The remaining two states did not have sufficient information readily available to allow a valid appraisal of conditions as of the last week in July.

The situation regarding qualified teacher applicants in late July 1971 compared with 1970 was reported by 4 states as being *about the same*, and by 35 states as being a *larger excess*. Eight states reported a *much larger excess* than one year earlier. Two states did not have sufficient information to report. Table 1 shows the 5-year trend in the alleviation of general shortages.

Some Conditions Influencing Teacher Demand

Responses from states and large school systems show a mixed national pattern in the fall 1971 trend in provisions for school staffing. An estimate of conditions within the state was given by respondents in 24 states which enroll about 60.0 percent of all public-school pupils. An estimate of conditions within the school system was given by 37 respondents in the large school systems which enrolled 65.3 percent of the pupils in the 66 school systems participating in the survey. The following shows the percents of pupils affected by each of the school staffing conditions in fall 1971:

Condition	Percent of pupils affected	
	24 states	37 large systems
Number of new teaching positions reflects a continuation of recent trend toward improved staffing and programs	42.1%	5.8%
The improved teacher supply is being used to accelerate recent trends in annual improvements in school staffing and programs	12.5	3.4
Financial conditions are slowing, arresting, or reversing recent trend toward improved school programs and staffing	45.4	90.8
Total	100.0%	100.0%

Reports from states and from large school systems show a change in the proportions of teachers leaving their positions last year; this, in turn, creates fewer than normal numbers of vacancies to be filled by experienced or beginning teachers. The percentage of last year's teaching staff leaving full-time teaching for personal reasons, maternity, or employment outside education this fall compared with one year earlier is reported to be lower in 19 states, about the same in 12 states, and higher in 2 states. The remaining 17 states did not have sufficient information to offer an estimate of this condition. The respondents in 63 of the large school systems reported the extent of this type of termination compared with one year ago as follows: lower this year, 39 systems; about the same, 21 systems; and higher this year, 3 systems.

Conditions by Population Areas

Respondents in 45 states were able to report conditions by population areas in their state. Three reported having an extremely low supply of applicants in rural areas and none

reported this condition for small cities, central cities of large urban centers, or suburban areas. An oversupply was reported in central cities by 21 states, in suburban areas by 29 states, in small cities by 17 states, and in rural areas by 2 states.

The second survey queried personnel officers in each of the nation's 83 largest school systems about teacher supply and demand conditions in their systems as of the last week in July 1971. Sixty-six systems reported a total of 1,420 unfilled positions. The unfilled positions represent 0.4 percent of the teachers in these systems in fall 1970.

The following shows the trend toward improvement in the supply of teachers in the reporting large school systems:

Year	Number of systems reporting	Number of positions open in late July	Percent of total teaching positions represented by vacant positions
1967 ..	57	7,843	2.4%
1968 ..	76	5,482	1.6
1969 ..	76	4,013	1.0
1970 ..	67	2,314	0.6
1971 ..	66	1,420	0.4

Conditions by Teaching Assignment Area

State department of education personnel report either a *low supply* or an *extremely low supply* of qualified teacher applicants in their school systems for 1971-72 in the following assignments (most frequently listed by 47 states reporting this information): special education, 33 states; industrial arts, 27 states; special assignments in remedial reading, speech correction, etc., 27 states; special assignments directed to educationally disadvantaged children, 25 states; elementary-school librarian, 23 states; and mathematics, 15 states. The most frequently listed assignment areas in which 47 states expect school systems generally will have to employ persons with substandard qualifications are special education, 11 states; trade-industrial-vocational-technical subjects, 8 states; and industrial arts, 4 states.

Assignments most frequently reported as having an oversupply of qualified applicants were social studies, 43 states; English language arts, 35 states; men teachers of physical and health education, 28 states; elementary-school teachers, 24 states; business education, 16 states; home economics, 14 states; foreign languages, 14 states; and art, 13 states.

The assignments identified in the annual national survey as having a relatively low supply of qualified teachers are also reported as being in low supply by significant numbers of large school systems. The most frequently identified assignments these 66 school systems report having an *extremely low supply* or a *low supply* of qualified applicants in late July are as follows:

Assignment	Number of large school systems having: An extremely low supply of applicants	A low supply of applicants	Number of positions not filled in late July 1971 in the large school systems
Industrial arts	19	20	126
Special education .	4	28	314
Mathematics	4	20	139
Trade, industrial, vocational	5	24	50
Remedial reading, speech, etc.	5	14	71
Distributive education	5	12	21

Supporting these reports of low supplies are the numbers of these 66 large school systems which reported they have had to employ persons with substandard qualifications in these assignment areas for 1971-72: 9, industrial arts; 9, special education; 7, mathematics; 7, trade-industrial-vocational-technical courses; and 5, distributive education.

Assignments most frequently reported by the large school systems as having an oversupply of qualified applicants include social studies, 57, English language arts, 53; men teachers of physical and health education, 43; elementary-school teachers, 43; foreign languages, 41; business education, 32; home economics, 30; and art, 27.

Some Outcomes of the Teacher Oversupply

Use of the improved adequacy of the supply of beginning teachers to improve the quality of staffing is reported widely. The percentage of new teachers hired for fall 1971

TABLE 1.--GENERAL CONDITION OF TEACHER SUPPLY AND DEMAND AS REPORTED BY STATE DEPARTMENTS OF EDUCATION PERSONNEL, 1966-1971

General condition of teacher supply and demand	Number of states reporting condition as of fall 1966	1967	1968	1969	1970	1971
1	2	3	4	5	6	7
Substantial shortage of applicants ...	20	19	5	2	0	0
Some shortage of applicants	11	14	17	12	2	0
Shortage of applicants in some subject areas and excess in others	8	11	19	32	35	24
Sufficient applicants to fill positions	0	1	1	1	7	0
Some excess of applicants	0	0	0	2	1	11
Substantial excess of applicants	0	0	0	0	4	13
Valid appraisal not possible with present information..	11	5	8	1	1	2

who have higher qualifications than the minimum requirement for certification is reported to be higher than last year by 21 states, about the same as last year by 10 states, and lower than last year by 3 states. The remaining 16 states did not have sufficient information to offer an estimate. Thirty-seven of the 61 large school systems responding to this question reported having a higher percentage of well-qualified new teachers this year; 24 reported the percentage to be about the same as one year earlier; and none reported the percentage to be lower than one year ago.

However, lower teacher mobility is indicated by responses from the states and the large school systems. Compared with one year ago, the percentage of last year's teaching staff who were leaving to teach in another school system this year was reported to be lower this year by 29 states, about the same by 7 states, and higher this year by 1 state. The remaining 13 states did not have sufficient data for an estimate. Among the 61 large school systems responding to this question, the percentage is lower this year by 45 systems about the same in 13 systems, and higher this year in 3 systems.

Evidence from the large school systems supports a conclusion that employment of transferring teachers this year may be at lower rates than in previous years. Among the 58 large school systems responding, 19 reported the percentage of new teachers transferring to their school system from a teaching position elsewhere last year is lower than the percentage observed one year ago, 32 reported it to be about the same, and 7 reported it to be higher this year.

Interruption of a teaching career to return for advanced studies may be at lower than normal levels this year. The percentage of last year's teaching staff who are leaving full-time teaching to enter or return to advanced studies this fall (exclusive of those on sabbatical leave) is reported to be lower than one year earlier by 14 states and about the same as one year ago by 16 states; no state reported it to be higher than one year ago. The remaining 20 states did not have sufficient data to provide an estimate of this factor. Among the 63 large school systems responding to this question 34 reported the percentage to be lower this year, 24 reported it as about the same, and 5 reported it to be higher this year.

THE SUPPLY OF NEW TEACHERS

MOST OF THE qualified new teachers are supplied from the following sources: (a) graduates currently completing teacher education programs, (b) former teachers currently interested in re-entering classroom teaching, and (c) teacher education graduates of previous years currently interested in entering the profession for the first time. The major objective of this study is to estimate the supply and demand conditions pertaining to the new supply of graduates completing preparation to enter teaching. The supply of new teachers from other sources is difficult to estimate because little is known about the numbers of people which may be involved, and about the factors influencing them when they apply for active employment in public-school teaching.

Supply of Beginning Teachers

The summary in Table 2 shows there are expected to be 118,775 prospective elementary-school teachers and 176,237 prospective secondary-school teachers who will be completing their preparation with at least a bachelor's degree in time for entry into the teaching profession at the beginning of the 1971-72 session. Also, 10,715 prospective teachers of special education at either level are expected to be completing their professional preparation. The ungraded classifications listed in Table 2 are used for the fifth time this year, and as a result, may not have elicited complete reporting; many institutions may not have had data readily available in these classifications and the questionnaire may not have been sent to some institutions which prepare persons for these positions.

A review of trends in the supply of persons completing their preparation for teaching is provided by Table 3 and Figure 1. To provide data groupings comparable with the earlier studies in this series, the numbers of persons completing preparation in selected subject fields for assignment in elementary schools or for special education, and library science, have been regrouped with the high-school subjects. The summary shows continuing growth in the numbers of persons being prepared for elementary- and high-school assignments. With 1950 as a base, the first year for which complete data are available, the percentages show the general pattern of growth in the supply of college graduates prepared to teach in elementary schools and in the high-school subjects. The table shows that the total number of persons receiving a bachelor's or first professional degree was below the 1950 level through 1960, approached the 1950 level in 1961-62, and has exceeded the 1950 level since 1962. A similar general pattern of lower annual new supply during the 1950-1959 period followed by greater supply since 1962 is observed among the number of persons being prepared to teach in high schools. The number being prepared to teach in elementary schools has been consistently greater than the 1950 level, more than twice as many being graduated each year between 1962 and 1967, more than three times as many in 1968 and 1969, and four times as many in 1971 as were being prepared in 1950.

The percentages of graduates receiving the bachelor's or first professional degree represented by persons completing teacher education programs suggest that teacher preparation attracted an increasing proportion of persons enrolled in higher education until 1966, but the proportion has held near the 1966 level through 1971. These classifications are not entirely comparable because the number of teacher education graduates includes persons completing the master's degree and the basis for counting graduates with the first professional degree changed in 1966. Also, because the 1971 projection of graduates is likely to be a conservative estimate, the apparent change may not be substantiated. Summarized below are the percentages of the total number of baccalaureate and first professional degree graduates represented by the graduates who have completed teacher education programs, biennially since 1950.

Year	Teacher education graduates as percent of total bachelor's and first professional degree class		
	Elementary school	Secondary school	Total
1950	6.6	20.1	26.7
1952	11.4	18.6	30.0
1954	12.6	16.8	29.4
1956	13.2	18.3	31.5
1958	12.5	19.0	31.5
1960	13.5	19.9	33.5
1962	14.0	20.4	34.4
1964	14.7	20.5	35.2
1965	14.7	21.2	35.9
1966*	14.1	22.2	36.3
1967*[a]	13.0	20.6	33.6
1968*	13.7	21.5	35.2
1969*	13.6	21.3	34.8
1970*	13.2	21.4	34.6
1971 est.*	13.3	22.3	35.6

*Persons completing preparation to teach specific subjects are grouped within high-school category as in earlier studies of this series. Total does not include the graduates prepared to enter supporting ungraded positions.

[a]A few institutions in two states did not respond in 1968.

Among the high-school subject areas the numbers of new teacher education graduates are expected to exceed 1950 levels in all areas except agriculture. The current status is a marked change from the 1952 through 1958 period in which the number of new high-school teachers being graduated was lower than the 1950 levels in all areas except "other fields."

Table 3 (page 14) should be interpreted with consideration given to the following: (a) The base year, 1950, contained the crest of the wave of returning World War II veterans who completed their college degree. (b) The supply of new teacher education graduates in 1950 was not in balance with the demand for new teachers. (c) The impact of the increase in demand for public-school teachers for the flood of enlarged public-school enrollments was yet to be felt. It reached the first grade beginning in 1952-53.

The supply of prospective teachers in each state is summarized in Tables 4, 5, and 6 showing the numbers completing their preparation grouped by sex, degree, and the instructional level for which they have been prepared. As may be expected from differences in population, there are wide differences among the states in the numbers of persons being prepared for teaching.

Occupation of Teacher Education Graduates in 1970

Typically many persons completing teacher education programs do not enter teaching positions during the subsequent year, even in a time of shortage. The occupational status of the teacher education graduates of 1970 is shown in Table 7. As a whole, follow-up information has been reported for 88.6 percent of the prospective elementary-school teachers and for 87.5 percent of the prospective secondary-school teachers who were graduated in 1970. Information is not available from California, Kentucky, and Tennessee. Data for less than 85 percent of the teacher education graduates of 1970 are available for Connecticut, (elementary), District of Columbia, Indiana (elementary), Maine, Massachusetts, New Hampshire, New Mexico, Rhode Island (elementary), South Carolina (secondary), and Vermont (secondary). Information in column 11 shows that the status of 19.2 percent of the teacher education graduates is not known by these reporting institutions. This suggests that the percentage entries in at least one of the other columns are lower than would be observed if follow-up information were available for all graduates.

The fields of preparation from which highest percentages of graduates entered teaching immediately following graduation include junior high-school subjects, elementary school regular instruction, mathematics, special education, industrial arts, and physical and health education in elementary school. Areas of preparation in which lowest percentages of graduates entered teaching immediately following graduation include journalism, physics, social studies, speech and drama, trade-industrial-vocational, and business education.

The percentages of graduates entering teaching biennially since 1954 by major areas of preparation are reviewed in Table 8. A continuing annual moderation in the percentage entering teaching noted since 1962 is generally observed among the fields. Each of these estimates may reflect minimum levels of entry because they may be increased by the possible entry of persons in the group of approximately 15 percent for whom no follow-up information is available. The data in this summary show that the proportions observed in the early 1960's may provide a planning estimate of the net or effective supply of beginning teachers available for employment in 1971-72.

The estimated supply of graduates who would be available for employment if positions were available in fall 1971 is provided in Table 9. The rate of entry estimated for graduates prepared to teach at the elementary school level (83.3 percent) was reported for 1958, a year in which entry rates were near their peak and follow-up information was reported for a very high proportion of teacher education graduates. The rate of entry similarly estimated for graduates prepared to teach in secondary schools (69.2 percent) was reported for 1962. These rates are different from the 83.2 percent entry rate for elementary and the 75.0 percent entry rate for secondary used in the 1970 edition of this series. For a specific subject in high-school teaching the currently estimated supply (69.2 percent) is likely to be conservative because subjects in short supply typically have attracted a higher than average proportion of graduates.

The Supply of Qualified Former Teachers

Some of the teachers who leave their positions may be expected to return to the profession. In addition to many teachers on leaves of absence, a significant number return to the classroom after varied lengths of interruptions.

The pool of elementary- or secondary-school teachers who had completed at least four years of college and were unemployed in 1960 was estimated by the U.S. Bureau of the Census to comprise about 304,460 persons. Problems in definition of *teacher*, particularly in the vocational fields, by the census enumerators make this a very general estimate. An assumption that this pool contains the 20-year accumulation of 1.5 percent of the teachers employed each year suggests that this pool contained 439,100 persons in fall 1971.

The 55,800 teachers estimated to have re-entered teaching in fall 1960 represented 18.3 percent of the pool of unemployed teachers that year. The supply of experienced teachers available for re-entry in fall 1971 based on this rate would be 80,400 persons. The annual numbers available for re-entry from this source of supply will increase by more than 2,000 each year, 1971 to 1980.

TABLE 2A. -- COLLEGE STUDENTS COMPLETING BACHELOR'S DEGREE, 1971 AND 1970, BY FIELD

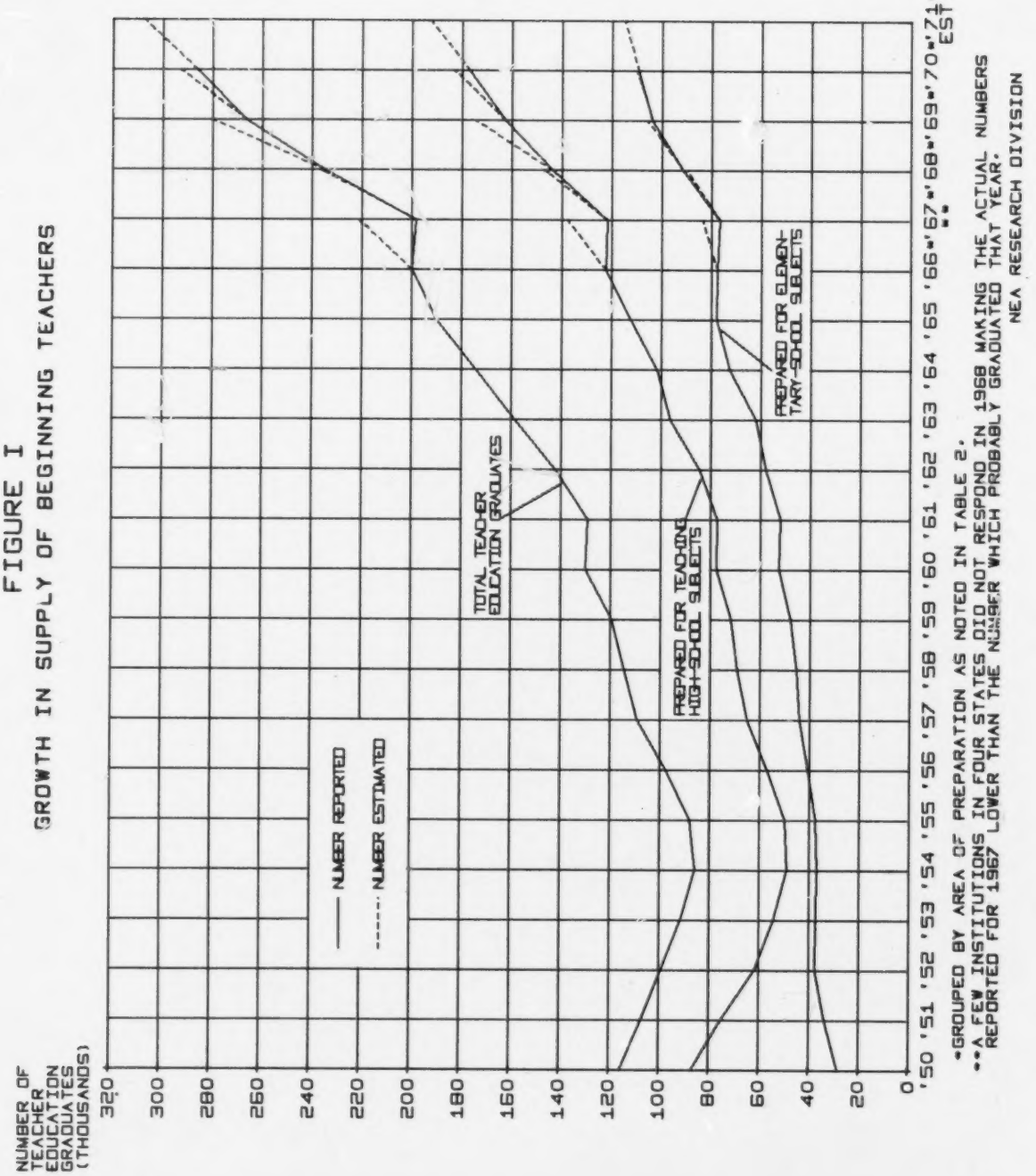
LINE NO	TYPE OF PREPARATION	1971 MEN	1971 WOMEN	1971 TOTAL	1970 MEN	1970 WOMEN	1970 TOTAL	1970 TO 1971 NET CHANGE	1970 TO 1971 PERCENT CHANGE
1	2	3	4	5	6	7	8	9	10
	ELEMENTARY-SCHOOL TOTAL	10,644	93,008	105,137	9,742	89,145	100,309	+ 4,828	+ 4.8
1	REGULAR INSTRUCTION	9,593	90,670	101,747	8,832	86,829	96,935	+ 4,812	+ 5.0
	SELECTED SUBJECTS(TOTAL)	1,051	2,338	3,390	910	2,316	3,374	+ 16	+ .5
2	ART	184	880	1,064	189	881	1,112	- 48	- 4.3
3	FOREIGN LANGUAGES	20	188	208	19	216	235	- 27	- 11.5
4	MUSIC	332	753	1,086	329	817	1,176	- 90	- 7.7
5	PHYSICAL & HEALTH EDUCATION	515	517	1,032	373	402	851	+ 181	+ 21.3
	SECONDARY SCHOOL								
6	AGRICULTURE	1,398	12	1,449	1,402	90	1,492	- 43	- 2.9
7	ART	2,108	5,248	7,445	1,808	4,573	6,441	+ 1,004	+ 15.6
8	BUSINESS EDUCATION	3,410	6,923	10,368	3,123	6,534	9,661	+ 707	+ 7.3
9	DISTRIBUTIVE EDUCATION	479	241	755	333	124	457	+ 298	+ 65.2
	ENGLISH LANGUAGE ARTS(TOTAL)	7,278	22,102	29,728	6,475	20,912	27,629	+ 2,099	+ 7.6
10	ENGLISH	5,775	18,988	25,053	5,148	18,210	23,584	+ 1,469	+ 6.2
11	JOURNALISM	135	221	356	110	196	306	+ 50	+ 16.3
12	SPEECH AND DRAMATIC ARTS	1,368	2,893	4,319	1,217	2,506	3,739	+ 580	+ 15.5
	FOREIGN LANGUAGES(TOTAL)	1,591	6,715	8,413	1,467	6,619	8,118	+ 295	+ 3.6
13	FRENCH	507	2,969	3,520	446	2,997	3,459	+ 61	+ 1.8
14	GERMAN	285	763	1,067	235	695	936	+ 131	+ 14.0
15	LATIN	60	184	249	71	195	266	- 17	- 6.4
16	RUSSIAN	35	68	106	27	91	118	- 12	- 10.2
17	SPANISH	677	2,657	3,370	661	2,566	3,237	+ 133	+ 4.1
18	OTHER	27	74	101	27	75	102	- 1	- 1.0
19	HOME ECONOMICS	12	7,934	8,073	5	7,504	7,534	+ 539	+ 7.2
20	INDUSTRIAL ARTS	5,059	42	5,136	4,489	51	4,569	+ 567	+ 12.4
21	JUNIOR HIGH SCHOOL(GENERAL)	234	376	610	209	375	611	- 1	- .2
22	MATHEMATICS	5,018	5,547	10,695	4,695	5,168	9,957	+ 738	+ 7.4
23	MUSIC	3,129	4,368	7,609	2,908	3,764	6,727	+ 882	+ 13.1
24	PHYSICAL & HEALTH EDUCATION	12,179	7,848	20,308	10,902	7,151	18,377	+ 1,931	+ 10.5
	NATURAL & PHYSICAL SCIENCES (TOTAL)	6,501	4,189	10,863	5,877	3,628	9,617	+ 1,246	+ 13.0
25	SUBJECT NOT SPECIFIED	794	552	1,347	678	335	1,087	+ 260	+ 23.9
26	GENERAL SCIENCE	822	443	1,325	832	395	1,264	+ 61	+ 4.8
27	BIOLOGY	3,567	2,651	6,277	3,268	2,480	5,748	+ 529	+ 9.2
28	CHEMISTRY	841	452	1,325	715	370	1,086	+ 239	+ 22.0
29	PHYSICS	477	91	589	384	48	432	+ 157	+ 36.3
	SOCIAL STUDIES(TOTAL)	20,647	13,341	34,348	18,033	12,256	30,563	+ 3,785	+ 12.4
30	SUBJECT NOT SPECIFIED	8,410	5,542	14,259	7,836	5,193	13,216	+ 1,043	+ 7.9
31	HISTORY, GEOGRAPHY	8,919	5,251	14,223	7,163	4,817	12,066	+ 2,157	+ 17.9
32	ECONOMICS, SOCIOLOGY, PSYCHOLOGY	1,626	1,610	3,236	1,484	1,385	2,869	+ 367	+ 12.8
33	OTHER SOCIAL STUDIES	1,692	938	2,630	1,550	861	2,412	+ 218	+ 9.0
34	TRADE, INDUSTRY, TECHNOLOGY	752	24	776	732	65	797	- 21	- 2.6
35	OTHER SECONDARY SUBJECTS	480	641	1,128	376	496	876	+ 252	+ 28.8
	SECONDARY-SCHOOL TOTAL	70,275	85,551	157,704	62,834	79,310	143,426	+14,278	+ 10.0
	UNGRADED								
36	SPECIAL EDUCATION	1,144	6,463	8,196	910	5,561	6,698	+ 1,498	+ 22.4
37	LIBRARIAN	98	979	1,107	79	988	1,096	+ 11	+ 1.0
38	GUIDANCE COUNSELOR	195	122	371	144	116	283	+ 88	+ 31.1
39	SCHOOL PSYCHOLOGIST	48	27	77	41	27	68	+ 9	+ 13.2
40	SCHOOL SOCIAL WORKER	3	4	7	2	6	8	- 1	- 12.5
41	SCHOOL NURSE	26	474	596	25	534	571	+ 25	+ 4.4
42	OTHER UNGRADED	411	1,034	1,445	617	1,740	2,357	- 912	- 38.7
	GRAND TOTAL	82,844	187,662	274,640	74,394	177,427	254,816	+19,824	+ 7.8

TABLE 2B. -- COLLEGE STUDENTS COMPLETING MASTER'S DEGREE AND TOTAL COMPLETING BACHELOR'S AND MASTER'S DEGREES, 1971 AND 1970, BY FIELD

LINE NO.	TYPE OF PREPARATION	1971 MEN	1971 WOMEN	1971 TOTAL	1970 MEN	1970 WOMEN	1970 TOTAL	1970 TO 1971 NET CHANGE	1970 TO 1971 PERCENT CHANGE	TOTAL, BACHELOR'S AND MASTER'S 1971	TOTAL, BACHELOR'S AND MASTER'S 1970	NET CHANGE	PERCENT CHANGE
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ELEMENTARY-SCHOOL TOTAL	2,669	10,848	13,638	2,343	10,442	12,792	+ 846	+ 6.6	118,775	113,101	+ 5,674	+ 5.0
1	REGULAR INSTRUCTION	2,526	10,485	13,132	2,236	10,087	12,330	+ 802	+ 6.5	114,879	109,265	+ 5,614	+ 5.1
	SELECTED SUBJECTS (TOTAL)	143	363	506	107	355	462	+ 44	+ 9.5	3,896	3,836	+ 60	+ 1.6
2	ART	56	155	211	23	155	178	+ 33	+ 18.5	1,275	1,290	- 15	- 1.2
3	FOREIGN LANGUAGES	8	71	79	6	93	99	- 20	- 20.2	287	334	- 47	- 14.1
4	MUSIC	39	88	127	37	61	98	+ 29	+ 29.6	1,213	1,274	- 61	- 4.8
5	PHYSICAL & HEALTH EDUCATION	40	49	89	41	46	87	+ 2	+ 2.3	1,121	938	+ 183	+ 19.5
	SECONDARY SCHOOL												
6	AGRICULTURE	247	65	312	255	64	319	- 7	- 2.2	1,761	1,811	- 50	- 2.8
7	ART	251	612	863	248	584	838	+ 25	+ 3.0	8,308	7,279	+ 1,029	+ 14.1
8	BUSINESS EDUCATION	411	416	827	450	464	914	- 87	- 9.5	11,195	10,575	+ 620	+ 5.9
9	DISTRIBUTIVE EDUC.	52	61	113	43	45	88	+ 25	+ 28.4	868	545	+ 323	+ 59.3
	ENGLISH LANGUAGE ARTS (TOTAL)	1,020	2,177	3,200	972	2,405	3,394	- 194	- 5.7	32,928	31,023	+ 1,905	+ 6.1
10	ENGLISH	866	1,913	2,782	832	2,161	3,010	- 228	- 7.6	27,835	26,594	+ 1,241	+ 4.7
11	JOURNALISM	17	22	39	14	31	45	- 6	- 13.3	395	351	+ 44	+ 12.5
12	SPEECH & DRAMATIC ARTS	137	242	379	126	213	339	+ 40	+ 11.8	4,698	4,078	+ 620	+ 15.2
	FOREIGN LANGUAGES (TOTAL)	297	730	1,027	290	898	1,188	- 161	- 13.6	9,440	9,306	+ 134	+ 1.4
13	FRENCH	69	295	364	71	359	430	- 66	- 15.3	3,884	3,889	- 5	- .1
14	GERMAN	42	72	114	39	99	138	- 24	- 17.4	1,181	1,074	+ 107	+ 10.0
15	LATIN	18	13	31	28	26	54	- 23	- 42.6	280	320	- 40	- 12.5
16	RUSSIAN	10	14	24	5	12	17	+ 7	+ 41.2	130	135	- 5	- 3.7
17	SPANISH	141	290	431	125	339	464	- 33	- 7.1	3,801	3,701	+ 100	+ 2.7
18	OTHER	17	46	63	22	63	85	- 22	- 25.9	164	187	- 23	- 12.3
19	HOME ECONOMICS	11	531	542	20	561	581	- 39	- 6.7	8,615	8,115	+ 500	+ 6.2
20	INDUSTRIAL ARTS	549	7	556	530	6	536	+ 20	+ 3.7	5,692	5,105	+ 587	+ 11.5
21	JR. HIGH SCHOOL (GENERAL)	30	36	66	48	61	109	- 43	- 39.4	676	720	- 44	- 6.1
22	MATHEMATICS	667	497	1,164	637	512	1,149	+ 15	+ 1.3	11,859	11,106	+ 753	+ 6.8
23	MUSIC	408	340	748	410	293	703	+ 45	+ 6.4	8,357	7,430	+ 927	+ 12.5
24	PHYSICAL & HEALTH EDUCATION	1,070	664	1,774	995	598	1,593	+ 181	+ 11.4	22,082	19,970	+ 2,112	+ 10.6
	NATURAL & PHYSICAL SCIENCES(TOTAL)	1,183	693	1,923	1,214	663	1,884	+ 39	+ 2.1	12,786	11,501	+ 1,285	+ 11.2
25	SUBJECT NOT SPEC.	284	161	450	279	171	453	- 3	- .7	1,797	1,540	+ 257	+ 16.7
26	GENERAL SCIENCE	142	73	215	174	77	253	- 38	- 15.0	1,540	1,517	+ 23	+ 1.5
27	BIOLOGY	525	353	920	546	327	875	+ 45	+ 5.1	7,197	6,623	+ 574	+ 8.7
28	CHEMISTRY	138	87	225	132	74	206	+ 19	+ 9.2	1,550	1,292	+ 258	+ 20.0
29	PHYSICS	94	19	113	83	14	97	+ 16	+ 16.5	702	529	+ 173	+ 32.7
	SOCIAL STUDIES (TOTAL)	2,010	1,392	3,407	2,014	1,472	3,516	- 109	- 3.1	37,755	34,079	+ 3,676	+ 10.8
30	SUBJECT NOT SPEC.	701	467	1,171	635	456	1,120	+ 51	+ 4.6	15,430	14,336	+ 1,094	+ 7.6
31	HISTORY, GEOGRAPHY	861	642	1,505	963	719	1,682	- 177	- 10.5	15,728	13,748	+ 1,980	+ 14.4
32	ECONOMICS, SOCIOLOGY, PSYCHOLOGY	271	138	409	230	138	369	+ 40	+ 10.8	3,645	3,238	+ 407	+ 12.6
33	OTHER SOCIAL STUDIES	177	145	322	186	159	345	- 23	- 6.7	2,952	2,757	+ 195	+ 7.1
34	TRADE, INDUSTRY, TECHNOLOGY	97	37	134	110	40	150	- 16	- 10.7	910	947	- 37	- 3.9
35	OTHER SECONDARY SUBJ.	939	938	1,877	802	759	1,561	+ 316	+ 20.2	3,005	2,437	+ 568	+ 23.3
	SECONDARY-SCHOOL TOTAL	9,242	9,196	18,533	9,038	9,425	18,523	+ 10	+ .1	176,237	161,949	+14,288	+ 8.8
	UNGRADED												
36	SPECIAL EDUCATION	654	1,865	2,519	660	1,868	2,528	- 9	- .4	10,715	9,226	+ 1,489	+ 16.1
37	LIBRARIAN	81	522	603	95	549	644	- 41	- 6.4	1,710	1,740	- 30	- 1.7
38	GUIDANCE COUNSELOR	2,201	2,195	4,416	2,136	2,314	4,460	- 44	- 1.0	4,787	4,743	+ 44	+ .9
39	SCHOOL PSYCHOLOGIST	274	314	588	300	344	648	- 60	- 9.3	665	716	- 51	- 7.1
40	SCHOOL SOCIAL WORKER	7	28	35	5	35	40	- 5	- 12.5	42	48	- 6	- 12.5
41	SCHOOL NURSE	6	37	43	21	47	68	- 25	- 36.8	639	639	...	...
42	OTHER UNGRADED	1,287	1,302	2,589	1,094	901	1,995	+ 594	+ 29.8	4,034	4,352	- 318	- 7.3
	GRAND TOTAL	16,421	26,307	42,964	15,692	25,925	41,698	+ 1,266	+ 3.0	317,604	296,514	+21,090	+ 7.1

FIGURE I

GROWTH IN SUPPLY OF BEGINNING TEACHERS



*GROUPED BY AREA OF PREPARATION AS NOTED IN TABLE 2.

**A FEW INSTITUTIONS IN FOUR STATES DID NOT RESPOND IN 1968 MAKING THE ACTUAL NUMBERS REPORTED FOR 1967 LOWER THAN THE NUMBER WHICH PROBABLY GRADUATED THAT YEAR.

NEA RESEARCH DIVISION

TABLE 3.—COLLEGE GRADUATES PREPARED TO TEACH, BY FIELD, AND PERCENT CHANGE FROM 1950[a]

Line no.	College graduates	1950	1952	1954	1956	1958	1960	1962	1964	1966	1968	1970	1971 est.
	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Total receiving bachelor's degree[b]	432,058	329,986	290,825	308,812	362,554	389,183[c]	414,275[c]	494,174[c]	551,040[c]	666,710[c]	827,234[c]	863,000[c]
2	Percent change from 1950	...	-23.6%	-32.7%	-28.5%	-16.1%	-9.9%	-4.1%	+14.4%	+27.5%	+54.3%	+91.5%	+99.7%
3	TOTAL PREPARED TO TEACH IN ELEMENTARY SCHOOL; REGULAR INSTRUCTION	28,587	37,649	36,885	40,801	45,318	52,630	57,854	72,581	77,703	91,336	109,265	114,879
4	Change from 1950	...	+31.7%	+29.0%	+42.7%	+58.5%	+84.1%	+102.4%	+153.9%	+171.8%	+219.5%	+282.2%	+301.9%
	PREPARED TO TEACH IN HIGH-SCHOOL OR SPECIFIC SUBJECTS:												
5	AGRICULTURE	3,294	1,891	1,541	1,549	1,804	1,379	1,032	997	1,787	1,443	1,811	1,761
6	Change from 1950	...	-42.6%	-53.2%	-53.0%	-45.2%	-58.1%	-68.7%	-69.7%	-45.7%	-56.2%	-45.0%	-46.6%
7	ART	2,225	2,249	1,856	2,072	2,233	2,719	3,031	4,031	4,998	6,502	8,569	9,583
8	Change from 1950	...	+1.1%	-16.6%	-6.9%	+0.4%	+22.2%	+36.2%	+81.2%	+124.6%	+192.2%	+285.1%	+330.7%
9	BUSINESS EDUCATION	7,235	5,165	4,076	5,494	6,166	7,106	6,752	7,207	7,261	8,618	10,575	11,195
10	Change from 1950	...	-28.6%	-43.7%	-24.1%	-14.8%	-1.8%	-6.7%	-0.4%	-0.4%	+19.1%	+46.2%	+54.7%
11	ENGLISH	10,709	8,211	5,278	5,945	7,706	9,295	11,886	16,021	18,410	23,008	26,594	27,835
12	Change from 1950	...	-23.3%	-50.7%	-44.5%	-28.0%	-13.2%	+11.0%	+49.6%	+71.9%	+114.8%	+148.3%	+159.9%
13	FOREIGN LANGUAGES	2,193	1,859	1,368	1,424	1,627	2,178	3,227	5,281	7,162	9,015	9,640	9,727
14	Change from 1950	...	-15.2%	-37.6%	-35.1%	-25.8%	-0.7%	+47.2%	+140.8%	+226.5%	+311.1%	+339.6%	+343.5%
15	HOME ECONOMICS	4,899	4,648	4,212	4,522	4,575	4,812	4,788	5,281	5,690	6,754	8,115	8,615
16	Change from 1950	...	-5.1%	-14.0%	-7.7%	-6.6%	-1.8%	-2.3%	+7.8%	+16.1%	+37.9%	+65.6%	+75.9%
17	INDUSTRIAL ARTS	4,890	3,161	2,201	2,655	3,791	3,785	3,325	3,435	3,432	4,325	5,105	5,692
18	Change from 1950	...	-35.4%	-55.0%	-45.7%	-22.5%	-22.6%	-22.0%	-29.8%	-29.8%	-11.5%	+4.4%	+16.4%
19	MATHEMATICS	4,618	3,142	2,223	2,544	3,445	5,652	6,839	8,026	9,193	10,090	11,106	11,859
20	Change from 1950	...	-32.0%	-51.9%	-44.9%	-25.4%	+22.4%	+48.1%	+73.8%	+99.1%	+118.5%	+140.5%	+156.8%
21	MUSIC	5,296	4,882	4,323	4,798	5,189	5,200	5,302	5,978	6,311	7,335	8,704	9,570
22	Change from 1950	...	-7.8%	-18.4%	-9.4%	-2.0%	-1.8%	+0.1%	+12.9%	+19.2%	+38.5%	+64.4%	+80.7%
23	MEN'S PHYSICAL EDUCATION	10,614	6,546	4,834	5,718	7,430	7,332	6,997	7,181	8,552[d]	9,137	12,544	13,999
24	Change from 1950	...	-38.3%	-54.5%	46.1%	-30.0%	-30.9%	-34.1%	-32.3%	-19.4%	-13.9%	+18.2%	+31.9%
25	WOMEN'S PHYSICAL EDUCATION	3,178	2,607	2,440	2,629	2,762	3,177	3,414	4,063	4,924[d]	6,547	8,364	9,204
26	Change from 1950	...	-18.0%	-23.2%	-17.3%	-13.1%	*e*	+7.4%	+27.8%	+54.9%	+106.0%	+163.2%	+189.6%
27	NATURAL AND PHYSICAL SCIENCES	9,096	5,246	3,641	4,320	5,467	7,119	7,808	8,608	10,476	10,126	11,501	12,786
28	Change from 1950	...	-40.3%	-60.0%	-52.5%	-39.9%	-21.7%	-14.2%	-5.4%	+15.2%	+11.3%	+26.4%	+40.6%
29	SOCIAL STUDIES	15,349	9,406	7,227	9,125	11,672	13,197	14,724	18,583	22,381	26,328	34,079	37,755
30	Change from 1950	...	-38.7%	-52.9%	-40.5%	-24.0%	-14.0%	-4.1%	+21.1%	+45.8%	+71.5%	+122.0%	+146.0%
31	OTHER FIELDS[f]	3,294	2,497	3,696	3,990	5,226	4,622	5,364	6,860	11,631[g]	14,383[g]	20,044[g]	22,977[g]
32	Change from 1950	...	-24.4%	+12.2%	+21.1%	+58.7%	+40.3%	+62.8%	+108.3%	+253.1%	+336.6%	+508.5%	+597.5%
33	TOTAL PREPARED TO TEACH HIGH-SCHOOL SUBJECTS	86,890	61,510	48,916	56,785	69,093	77,573	84,489	101,552	122,208	143,611	176,751	192,558
34	Change from 1950	...	-29.2%	-43.7%	-34.6%	-20.5%	-10.7%	-2.8%	+16.9%	+40.6%	+65.3%	+103.4%	+121.6%
35	PREPARED TO ENTER SELECTED POSITIONS	...	...	...	...	...	...	...	...	5,007	6,557	10,498	10,167
36	GRAND TOTAL PREPARED	115,477	99,159	85,801	97,586	114,411	130,203	142,343	174,133	204,918	241,504	296,514	317,604
37	Change from 1950	...	-14.1%	-25.7%	-15.5%	-0.9%	+12.8%	+23.3%	+50.8%	+77.5%	+109.1%	+156.8%	+175.0%

[a]Excludes students meeting certificate requirements at 90-, 60-, or 30-hour levels. [b]From: U. S. Department of Health, Education and Welfare, Office of Education. *Digest of Educational Statistics.* Washington, D. C.: Government Printing Office, 1968. p. 89. Includes bachelor's and first professional degrees. [c]From: U. S. Department of Health, Education, and Welfare, Office of Education. Unpublished Table prepared for *Projections of Educational Statistics to 1980-81.* Washington, D. C.: Government Printing Office. [d]Numbers of persons for whom sex was not reported are included proportionally. [e]Minus less than 1/10 of 1 percent. [f]Includes persons prepared to teach distributive education, unspecified junior high-school subjects, trade and industrial courses, special education, unspecified elementary-school classes, speech, drama, journalism, library sciences, and subjects not specified. [g]Not directly comparable with earlier years owing to changes in the data-collection instruments.

TABLE 4. -- COLLEGE STUDENTS RECEIVING DEGREES AND PREPARATION TO TEACH IN ELEMENTARY AND SECONDARY SCHOOLS, 1971 AND 1970, BY STATE

STATE	BACHELOR'S AND MASTER'S COMBINED			
	TOTAL, 1971	TOTAL, 1970	NET CHANGE	PERCENT CHANGE
1	2	3	4	5
ALABAMA	4,328	4,520	- 192	- 4.2
ALASKA	95	92	+ 3	+ 3.3
ARIZONA	3,002	3,217	- 215	- 6.7
ARKANSAS	3,523	3,369	+ 154	+ 4.6
CALIFORNIA	12,671	13,463	- 792	- 5.9
COLORADO	4,287	4,398	- 111	- 2.5
CONNECTICUT	3,986	4,308	- 322	- 7.5
DELAWARE	537	450	+ 87	+19.3
DISTRICT OF COLUMBIA	977	951	+ 26	+ 2.7
FLORIDA	7,445	6,813	+ 632	+ 9.3
GEORGIA	4,650	4,268	+ 382	+ 9.0
HAWAII	1,391	1,031	+ 360	+34.9
IDAHO	1,464	1,279	+ 185	+14.5
ILLINOIS	16,726	14,894	+ 1,832	+12.3
INDIANA	8,116	7,223	+ 893	+12.4
IOWA	5,959	5,346	+ 613	+11.5
KANSAS	4,748	4,747	+ 1	+ .0
KENTUCKY	6,117	5,803	+ 314	+ 5.4
LOUISIANA	4,948	4,607	+ 341	+ 7.4
MAINE	1,254	1,235	+ 19	+ 1.5
MARYLAND	3,408	3,008	+ 400	+13.3
MASSACHUSETTS	9,266	8,352	+ 914	+10.9
MICHIGAN	16,996	15,344	+ 1,652	+10.8
MINNESOTA	7,812	7,037	+ 775	+11.0
MISSISSIPPI	4,513	4,033	+ 480	+11.9
MISSOURI	7,439	7,190	+ 249	+ 3.5
MONTANA	1,814	1,246	+ 568	+45.6
NEBRASKA	4.615	4,233	+ 382	+ 9.0
NEVADA	525	459	+ 66	+14.4
NEW HAMPSHIRE	1,228	1,090	+ 138	+12.7
NEW JERSEY	7,881	7,143	+ 738	+10.3
NEW MEXICO	1,570	1,541	+ 29	+ 1.9
NEW YORK	23,728	21,473	+ 2,255	+10.5
NORTH CAROLINA	8,414	7,391	+ 1,023	+13.8
NORTH DAKOTA	1,825	1,937	- 112	- 5.8
OHIO	15,546	13,902	+ 1,644	+11.8
OKLAHOMA	5,664	5,010	+ 654	+13.1
OREGON	3,831	3,778	+ 53	+ 1.4
PENNSYLVANIA	17,520	16,546	+ 974	+ 5.9
RHODE ISLAND	1,832	1,408	+ 424	+30.1
SOUTH CAROLINA	2,634	2,720	- 86	- 3.2
SOUTH DAKOTA	2,542	2,570	- 28	- 1.1
TENNESSEE	6,479	6,155	+ 324	+ 5.3
TEXAS	15,265	15,224	+ 41	+ .3
UTAH	3,135	3,015	+ 120	+ 4.0
VERMONT	757	721	+ 36	+ 5.0
VIRGINIA	4,852	4,443	+ 409	+ 9.2
WASHINGTON	5,140	5,074	+ 66	+ 1.3
WEST VIRGINIA	3,483	3,288	+ 195	+ 5.9
WISCONSIN	8,557	7,257	+ 1,300	+17.9
WYOMING	517	448	+ 69	+15.4
TOTAL	295,012	275,050	+19,962	+ 7.3

TABLE 5. -- COLLEGE STUDENTS RECEIVING DEGREES AND PREPARATION TO TEACH IN THE ELEMENTARY SCHOOL, 1971 AND 1970, BY STATE

STATE	BACHELOR'S DEGREE						MASTER'S DEGREE					
	GRADUATES OF 1971		TOTAL,	1970 TO 1971			GRADUATES OF 1971		TOTAL,	1970 TO 1971		
	MEN	WOMEN	TOTAL	1970	NET CHANGE	PERCENT CHANGE	MEN	WOMEN	TOTAL	1970	NET CHANGE	PERCENT CHANGE
1	2	3	4	5	6	7	8	9	10	11	12	13
ALABAMA	48	1,116	1,164	1,262	- 98	- 7.8	13	127	140	189	- 49	- 25.9
ALASKA	5	37	42	37	+ 5	+ 13.5	4	12	16	21	- 5	- 23.8
ARIZONA	209	1,111	1,320	1,242	+ 78	+ 6.3	76	163	239	387	- 148	- 38.2
ARKANSAS	79	973	1,052	1,010	+ 42	+ 4.2	17	137	154	147	+ 7	+ 4.8
CALIFORNIA	260	1,616	1,876	2,356	- 480	- 20.4	779	3,468	4,247	4,027	+ 220	+ 5.5
COLORADO	131	1,289	1,420	1,237	+ 183	+ 14.8	57	168	225	208	+ 17	+ 8.2
CONNECTICUT	208	1,400	1,608	1,784	- 176	- 9.9	101	310	411	477	- 66	- 13.8
DELAWARE	42	161	203	165	+ 38	+ 23.0	...	...	...	...	...	...
DISTRICT OF COLUMBIA	20	427	447	362	+ 85	+ 23.5	7	58	65	106	- 41	- 38.7
FLORIDA	308	2,733	3,041	2,809	+ 232	+ 8.3	38	185	223	219	+ 4	+ 1.8
GEORGIA	71	1,699	1,770	1,657	+ 113	+ 6.8	36	155	191	178	+ 13	+ 7.3
HAWAII	19	473	493	326	+ 167	+ 51.2	13	202	215	268	- 53	- 19.8
IDAHO	58	441	499	501	- 2	- .4	16	37	53	16	+ 37	+231.3
ILLINOIS	541	5,558	6,099	5,751	+ 348	+ 6.1	74	330	404	357	+ 47	+ 13.2
INDIANA	267	2,880	3,168	2,764	+ 404	+ 14.6	57	239	296	168	+ 128	+ 76.2
IOWA	127	2,069	2,196	1,985	+ 211	+ 10.6	...	...	...	...	...	...
KANSAS	115	1,555	1,670	1,714	- 44	- 2.6	8	48	56	86	- 30	- 34.9
KENTUCKY	201	1,754	1,955	1,815	+ 140	+ 7.7	...	...	...	...	...	...
LOUISIANA	107	1,666	1,773	1,754	+ 19	+ 1.1	25	118	143	161	- 18	- 11.2
MAINE	193	330	523	504	+ 19	+ 3.8	...	...	...	...	...	...
MARYLAND	142	1,454	1,596	1,383	+ 213	+ 15.4	42	53	95	60	+ 35	+ 58.3
MASSACHUSETTS	401	3,076	3,977	3,947	+ 30	+ .8	113	379	608	415	+ 193	+ 46.5
MICHIGAN	710	5,801	6,511	6,045	+ 466	+ 7.7	64	140	204	172	+ 32	+ 18.6
MINNESOTA	342	2,220	3,037	2,893	+ 144	+ 5.0	25	10	35	...	+ 35	...
MISSISSIPPI	104	1,279	1,383	1,339	+ 44	+ 3.3	...	...	...	...	...	...
MISSOURI	235	2,519	2,772	2,787	- 15	- .5	7	35	42	121	- 79	- 65.3
MONTANA	81	523	604	433	+ 171	+ 39.5	8	9	17	60	- 43	- 71.7
NEBRASKA	243	1,611	1,854	1,733	+ 121	+ 7.0	22	23	45	63	- 18	- 28.6
NEVADA	13	160	173	177	- 4	- 2.3	1	4	5	30	- 25	- 83.3
NEW HAMPSHIRE	28	413	441	442	- 1	- .2	2	7	9	7	+ 2	+ 28.6
NEW JERSEY	334	2,456	3,175	2,993	+ 182	+ 6.1	46	82	133	126	+ 7	+ 5.6
NEW MEXICO	48	456	504	428	+ 76	+ 17.8	11	35	46	67	- 21	- 31.3
NEW YORK	880	7,824	8,704	7,748	+ 956	+ 12.3	367	2,401	2,768	2,506	+ 262	+ 10.5
NORTH CAROLINA	140	2,348	2,488	2,222	+ 266	+ 12.0	46	231	277	241	+ 36	+ 14.9
NORTH DAKOTA	36	468	504	560	- 56	- 10.0	...	...	...	...	...	...
OHIO	438	4,304	4,742	4,837	- 95	- 2.0	24	260	284	218	+ 66	+ 30.3
OKLAHOMA	223	1,642	1,865	1,764	+ 101	+ 5.7	34	140	174	128	+ 46	+ 35.9
OREGON	249	1,314	1,648	1,577	+ 71	+ 4.5	54	78	132	139	- 7	- 5.0
PENNSYLVANIA	1,140	5,909	7,049	6,493	+ 556	+ 8.6	47	131	178	211	- 33	- 15.6
RHODE ISLAND	43	485	528	519	+ 9	+ 1.7	136	234	370	98	+ 272	+277.6
SOUTH CAROLINA	36	982	1,018	1,018	...	...	9	15	24	55	- 31	- 56.4
SOUTH DAKOTA	63	873	936	858	+ 78	+ 9.1	5	9	14	22	- 8	- 36.4
TENNESSEE	148	1,771	1,919	1,846	+ 73	+ 4.0	22	54	76	70	+ 6	+ 8.6
TEXAS	435	5,212	5,647	5,885	- 238	- 4.0	141	525	666	664	+ 2	+ .3
UTAH	107	1,287	1,394	1,336	+ 58	+ 4.3	3	2	5	22	- 17	- 77.3
VERMONT	35	280	315	328	- 13	- 4.0	...	...	...	52	- 52	-100.0
VIRGINIA	71	1,621	1,692	1,584	+ 108	+ 6.8	30	72	102	53	+ 49	+ 92.5
WASHINGTON	319	1,613	1,932	2,029	- 97	- 4.8	...	...	...	...	...	...
WEST VIRGINIA	182	914	1,096	1,054	+ 42	+ 4.0	...	...	...	...	...	...
WISCONSIN	402	2,781	3,183	2,872	+ 311	+ 10.8	89	153	242	174	+ 68	+ 39.1
WYOMING	7	124	131	144	- 13	- 9.0	...	9	9	3	+ 6	+200.0
TOTAL	10,644	93,008	105,137	100,309	+ 4,828	+ 4.8	2,669	10,848	13,638	12,792	+ 846	+ 6.6

TABLE 6. -- COLLEGE STUDENTS RECEIVING DEGREES AND PREPARATION TO TEACH IN THE SECONDARY SCHOOL, 1971 AND 1970, BY STATE

STATE	BACHELOR'S DEGREE						MASTER'S DEGREE					
	GRADUATES OF 1971		TOTAL,	1970 TO 1971			GRADUATES OF 1971		TOTAL,	1970 TO 1971		
	MEN	WOMEN	TOTAL	1970	NET CHANGE	PERCENT CHANGE	MEN	WOMEN	TOTAL	1970	NET CHANGE	PERCENT CHANGE
1	2	3	4	5	6	7	8	9	10	11	12	13
ALABAMA	1,032	1,738	2,770	2,725	+ 45	+ 1.7	123	131	254	344	- 90	- 26.2
ALASKA	15	19	34	29	+ 5	+ 17.2	3	...	3	5	- 2	- 40.0
ARIZONA	563	620	1,183	1,172	+ 11	+ .9	171	89	260	416	- 156	- 37.5
ARKANSAS	924	1,173	2,097	2,000	+ 97	+ 4.8	125	95	220	212	+ 8	+ 3.8
CALIFORNIA	568	486	1,054	978	+ 76	+ 7.8	2,740	2,754	5,494	6,102	- 608	- 10.0
COLORADO	1,086	1,138	2,224	2,605	- 381	- 14.6	236	182	418	348	+ 70	+ 20.1
CONNECTICUT	724	868	1,592	1,659	- 67	- 4.0	170	205	375	388	- 13	- 3.4
DELAWARE	116	209	325	285	+ 40	+ 14.0	5	4	9	...	+ 9	...
DISTRICT OF COLUMBIA	108	304	412	404	+ 8	+ 2.0	13	38	53	79	- 26	- 32.9
FLORIDA	1,770	2,166	3,936	3,529	+ 407	+ 11.5	135	110	245	256	- 11	- 4.3
GEORGIA	933	1,655	2,588	2,316	+ 272	+ 11.7	39	62	101	117	- 16	- 13.7
HAWAII	149	200	349	257	+ 92	+ 35.8	147	187	334	180	+ 154	+ 85.6
IDAHO	456	410	866	719	+ 147	+ 20.4	30	16	46	43	+ 3	+ 7.0
ILLINOIS	4,276	5,100	9,376	8,049	+ 1,327	+ 16.5	458	389	847	737	+ 110	+ 14.9
INDIANA	1,954	2,468	4,426	4,076	+ 350	+ 8.6	128	98	226	215	+ 11	+ 5.1
IOWA	1,819	1,944	3,763	3,361	+ 402	+ 12.0	...	...	...	...	...	...
KANSAS	1,315	1,524	2,839	2,694	+ 145	+ 5.4	120	63	183	253	- 70	- 27.7
KENTUCKY	2,107	2,055	4,162	3,988	+ 174	+ 4.4	...	...	...	...	...	...
LOUISIANA	965	1,909	2,874	2,555	+ 319	+ 12.5	69	89	158	137	+ 21	+ 15.3
MAINE	395	336	731	731	...	...	...	...	...	...	...	...
MARYLAND	594	1,050	1,644	1,475	+ 169	+ 11.5	25	48	73	90	- 17	- 18.9
MASSACHUSETTS	1,462	1,843	3,971	3,477	+ 494	+ 14.2	335	350	710	513	+ 197	+ 38.4
MICHIGAN	4,665	5,255	9,920	8,853	+ 1,067	+ 12.1	172	189	361	274	+ 87	+ 31.8
MINNESOTA	1,809	1,878	4,511	4,022	+ 489	+ 12.2	106	123	229	122	+ 107	+ 87.7
MISSISSIPPI	1,382	1,748	3,130	2,694	+ 436	+ 16.2	...	...	...	...	...	...
MISSOURI	2,005	2,405	4,485	4,103	+ 382	+ 9.3	78	62	140	179	- 39	- 21.8
MONTANA	651	538	1,189	742	+ 447	+ 60.2	4	...	4	11	- 7	- 63.6
NEBRASKA	1,372	1,213	2,585	2,318	+ 267	+ 11.5	101	30	131	119	+ 12	+ 10.1
NEVADA	173	173	346	241	+ 105	+ 43.6	...	1	1	11	- 10	- 90.9
NEW HAMPSHIRE	303	414	717	612	+ 105	+ 17.2	30	31	61	29	+ 32	+110.3
NEW JERSEY	1,708	2,154	4,079	3,584	+ 495	+ 13.8	283	201	494	440	+ 54	+ 12.3
NEW MEXICO	414	489	903	929	- 26	- 2.8	58	59	117	117	...	...
NEW YORK	4,206	5,696	9,902	8,833	+ 1,069	+ 12.1	940	1,414	2,354	2,386	- 32	- 1.3
NORTH CAROLINA	2,239	2,828	5,067	4,384	+ 683	+ 15.6	276	306	582	544	+ 38	+ 7.0
NORTH DAKOTA	688	574	1,262	1,325	- 63	- 4.8	38	21	59	52	+ 7	+ 13.5
OHIO	5,233	4,936	10,169	8,351	+ 1,818	+ 21.8	190	121	351	496	- 145	- 29.2
OKLAHOMA	1,616	1,608	3,232	2,809	+ 423	+ 15.1	250	128	393	309	+ 84	+ 27.2
OREGON	832	1,038	1,953	1,925	+ 28	+ 1.5	51	47	98	137	- 39	- 28.5
PENNSYLVANIA	4,773	5,161	9,934	9,475	+ 459	+ 4.8	197	162	359	367	- 8	- 2.2
RHODE ISLAND	337	361	698	661	+ 37	+ 5.6	107	129	236	130	+ 106	+ 81.5
SOUTH CAROLINA	519	896	1,415	1,456	- 41	- 2.8	91	86	177	191	- 14	- 7.3
SOUTH DAKOTA	839	657	1,496	1,529	- 33	- 2.2	66	30	96	161	- 65	- 40.4
TENNESSEE	1,831	2,462	4,293	4,094	+ 199	+ 4.9	123	68	191	145	+ 46	+ 31.7
TEXAS	2,674	4,966	7,641	7,406	+ 235	+ 3.2	649	660	1,311	1,269	+ 42	+ 3.3
UTAH	760	941	1,701	1,615	+ 86	+ 5.3	24	11	35	42	- 7	- 16.7
VERMONT	243	187	430	308	+ 122	+ 39.6	12	...	12	33	- 21	- 63.6
VIRGINIA	909	2,013	2,922	2,654	+ 268	+ 10.1	58	78	136	152	- 16	- 10.5
WASHINGTON	1,440	1,768	3,208	3,045	+ 163	+ 5.4	...	...	...	...	...	...
WEST VIRGINIA	1,059	1,328	2,387	2,234	+ 153	+ 6.8	...	...	...	...	...	...
WISCONSIN	2,090	2,489	4,579	3,854	+ 725	+ 18.8	248	305	553	357	+ 196	+ 54.9
WYOMING	174	160	334	286	+ 48	+ 16.8	19	24	43	15	+ 28	+186.7
TOTAL	70,275	85,551	157,704	143,426	+14,278	+ 10.0	9,242	9,196	18,533	18,523	+ 10	+ .1

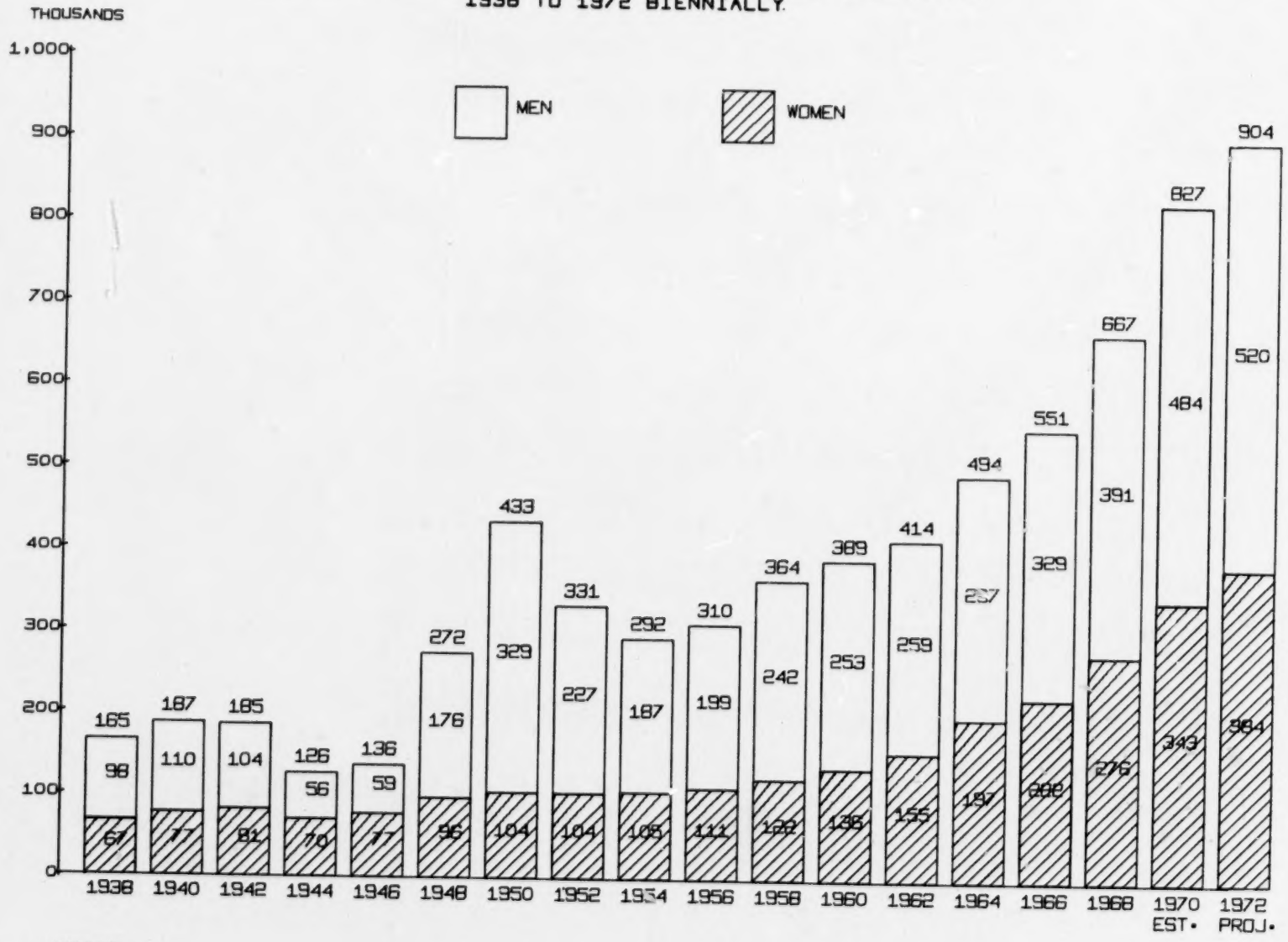
TABLE 7.--OCCUPATION ON NOVEMBER 1, 1970, OF PERSONS WHO WERE GRADUATED BETWEEN SEPTEMBER 1, 1969, AND AUGUST 31, 1970, WITH QUALIFICATIONS FOR STANDARD TEACHING CERTIFICATES

FIELD OF PREPARATION		PERCENT TEACHING			PERCENT NOT TEACHING							TOTAL PERCENT	NUMBER OF GRADUATES
		IN STATE	OUT OF STATE	TOTAL	OTHERWISE GAINFULLY EMPLOYED	CONTINUING FORMAL STUDY	MILITARY SERVICE	HOME MAKING	SEEKING TEACHING JOB	SEEKING NON TEACHING JOB	NO INFORMATION		
1		2	3	4	5	6	7	8	9	10	11	12	13
	MEN	47.6	16.0	63.5	7.5	3.4	4.7	.0	3.4	.6	16.9	100.0	11,430
ELEMENTARY-SCHOOL TOTAL . .	WOMEN	56.7	12.7	69.4	2.8	2.7	.0	4.0	3.9	.4	16.8	100.0	88,804
	BOTH	55.7	13.1	68.8	3.4	2.7	.6	3.5	3.8	.4	16.8	100.0	100,234
	MEN	47.7	16.8	64.4	8.0	3.3	4.8	.0	3.5	.5	15.4	100.0	10,139
REGULAR INSTRUCTION . . .	WOMEN	56.9	12.7	69.6	2.8	2.6	.0	4.0	3.9	.4	16.7	100.0	86,088
	BOTH	55.9	13.1	69.1	3.4	2.7	.5	3.6	3.8	.4	16.6	100.0	96,227
	MEN	43.3	10.6	54.0	2.3	6.5	3.4	.0	2.3	3.0	28.5	100.0	263
ART	WOMEN	48.4	11.2	59.6	4.1	4.5	.2	4.0	6.8	1.3	19.6	100.0	1,009
	BOTH	47.3	11.1	58.4	3.7	4.9	.9	3.1	5.9	1.7	21.5	100.0	1,272
	MEN	25.0	18.2	43.2	6.8	15.9	.0	.0	2.3	.0	31.8	100.0	44
FOREIGN LANGUAGE	WOMEN	41.8	21.4	63.2	6.4	8.2	.0	2.3	5.5	.0	14.5	100.0	220
	BOTH	39.0	20.8	59.8	6.4	9.5	.0	1.9	4.9	.0	17.4	100.0	264
	MEN	43.5	8.2	51.7	2.9	4.8	5.3	.0	1.3	1.3	32.6	100.0	377
MUSIC	WOMEN	54.8	13.0	67.8	1.8	3.3	.1	3.5	3.2	.5	19.8	100.0	913
	BOTH	51.5	11.6	63.1	2.1	3.7	1.6	2.5	2.6	.8	23.6	100.0	1,290
	MEN	51.4	10.0	61.4	4.9	2.3	4.1	.0	2.3	.0	24.9	100.0	607
PHY. AND HEALTH EDUC. . .	WOMEN	55.2	11.5	66.7	2.3	1.6	.0	2.4	3.7	.3	23.0	100.0	574
	BOTH	53.3	10.8	64.0	3.6	1.9	2.1	1.2	3.0	.2	24.0	100.0	1,181
SECONDARY SCHOOL													
	MEN	41.3	9.9	51.2	12.9	7.2	9.0	.0	1.3	.4	17.9	100.0	1,686
AGRICULTURE	WOMEN	2.4	42.4	44.8	43.3	.5	5.7	1.0	.0	.0	4.8	100.0	210
	BOTH	37.0	13.5	50.5	16.3	6.5	8.6	.1	1.2	.3	16.5	100.0	1,896
	MEN	41.4	12.1	53.5	6.1	6.0	5.5	.0	6.2	.8	22.0	100.0	1,674
ART	WOMEN	42.6	12.2	54.8	6.2	4.3	.1	4.5	7.8	.5	21.9	100.0	4,241
	BOTH	42.2	12.1	54.4	6.2	4.8	1.6	3.2	7.4	.6	21.9	100.0	5,915
	MEN	37.0	9.2	46.2	13.3	4.0	8.0	.0	4.5	.7	23.4	100.0	3,211
BUSINESS EDUCATION . . .	WOMEN	41.4	10.1	51.5	14.7	3.7	.3	5.1	4.2	.7	19.7	100.0	6,219
	BOTH	39.9	9.8	49.7	14.2	3.8	2.9	3.4	4.3	.7	21.0	100.0	9,430
	MEN	52.5	7.8	60.3	9.9	2.7	5.6	.0	2.7	.5	18.2	100.0	373
DISTRIBUTIVE EDUCATION .	WOMEN	42.9	11.2	54.0	12.4	6.8	.0	2.5	3.1	.0	21.1	100.0	161
	BOTH	49.6	8.8	58.4	10.7	3.9	3.9	.7	2.8	.4	19.1	100.0	534
	MEN	41.8	13.4	55.2	7.8	7.2	5.9	.0	5.0	.4	18.6	100.0	5,308
ENGLISH	WOMEN	45.1	11.5	56.6	6.6	5.8	.1	4.1	6.1	.5	20.3	100.0	17,923
	BOTH	44.4	11.9	56.3	6.9	6.1	1.4	3.2	5.8	.5	19.9	100.0	23,231
	MEN	34.5	6.2	40.7	10.6	4.4	8.8	.0	12.4	.0	23.0	100.0	113
JOURNALISM	WOMEN	39.8	4.2	44.0	8.4	2.1	.0	5.2	10.5	.0	29.8	100.0	191
	BOTH	37.8	4.9	42.8	9.2	3.0	3.3	3.3	11.2	.0	27.3	100.0	304
	MEN	33.1	11.2	44.3	9.6	11.7	6.5	.0	5.3	.4	22.2	100.0	1,224
SPEECH AND DRAMATIC ARTS	WOMEN	37.6	9.6	47.2	7.5	9.3	.3	4.7	8.4	.6	22.0	100.0	2,585
	BOTH	36.2	10.1	46.3	8.2	10.1	2.3	3.2	7.4	.5	22.1	100.0	3,809
	MEN	40.9	11.5	52.4	6.7	9.3	5.3	.0	5.0	.3	21.0	100.0	1,510
FOREIGN LANGUAGE	WOMEN	41.3	12.6	53.8	6.3	7.8	.1	4.0	7.3	.5	20.2	100.0	6,586
	BOTH	41.2	12.4	53.6	6.4	8.0	1.0	3.2	6.9	.5	20.3	100.0	8,096
	MEN	4.4	42.8	47.2	40.6	1.1	4.7	.0	4.4	.8	1.1	100.0	360
HOME ECONOMICS	WOMEN	42.4	11.3	53.7	11.3	4.7	.2	7.2	5.5	.6	16.8	100.0	7,264
	BOTH	40.6	12.7	53.4	12.6	4.5	.4	6.9	5.5	.6	16.1	100.0	7,624
	MEN	50.5	14.2	64.6	6.2	5.6	7.3	.0	2.5	.2	13.5	100.0	4,417
INDUSTRIAL ARTS	WOMEN	24.8	18.8	43.6	20.5	1.7	18.8	1.7	.9	.0	12.8	100.0	117
	BOTH	49.8	14.3	64.1	6.6	5.5	7.6	.0	2.4	.2	13.5	100.0	4,534
	MEN	59.3	7.1	66.5	1.5	5.0	4.7	.0	2.1	.3	19.9	100.0	337
JUNIOR H. S. SUBJECTS . .	WOMEN	63.7	8.6	72.3	2.0	3.6	.0	4.7	2.7	.4	14.2	100.0	548
	BOTH	62.0	8.0	70.1	1.8	4.2	1.8	2.9	2.5	.3	16.4	100.0	885

1		2	3	4	5	6	7	8	9	10	11	12	13
	MEN	51.9	12.0	63.9	4.8	5.4	8.6	.0	2.5	.4	14.3	100.0	4,850
MATHEMATICS	WOMEN	52.4	14.1	66.5	7.1	4.9	.3	3.2	2.8	.3	14.9	100.0	5,171
	BOTH	52.2	13.1	65.3	6.0	5.2	4.3	1.6	2.6	.3	14.6	100.0	10,021
	MEN	44.0	15.8	59.8	4.7	8.4	7.3	.0	2.2	.4	17.3	100.0	2,841
MUSIC	WOMEN	46.5	16.5	63.0	4.4	6.4	.3	4.2	2.7	.3	18.8	100.0	3,539
	BOTH	45.3	16.2	61.6	4.5	7.3	3.4	2.3	2.5	.3	18.1	100.0	6,380
	MEN	41.3	14.3	55.6	5.9	6.7	8.2	.0	3.7	.4	19.6	100.0	10,270
PHYSICAL AND HEALTH EDUC.	WOMEN	47.2	16.0	63.2	6.1	4.9	.5	4.1	3.9	.3	17.2	100.0	6,969
	BOTH	43.7	15.0	58.7	6.0	6.0	5.1	1.6	3.8	.3	18.6	100.0	17,239
NAT. AND PHYS. SCIENCES	MEN	32.4	10.0	42.5	4.5	10.8	15.8	.0	11.6	.7	14.1	100.0	1,224
(NOT SPECIFIED) . . .	WOMEN	25.3	7.6	32.8	2.8	11.7	13.5	9.5	2.3	.2	27.3	100.0	609
	BOTH	30.1	9.2	39.3	3.9	11.1	15.1	3.2	8.5	.5	18.4	100.0	1,833
GENERAL NAT. AND PHYS.	MEN	51.6	12.5	64.1	6.0	6.5	7.7	.0	2.5	.2	13.1	100.0	1,054
SCIENCES	WOMEN	43.2	14.9	58.1	9.5	7.0	.0	1.8	3.6	.2	19.9	100.0	558
	BOTH	48.7	13.3	62.0	7.2	6.6	5.0	.6	2.9	.2	15.4	100.0	1,612
	MEN	44.7	10.6	55.3	6.4	7.9	7.4	.0	3.5	.3	19.2	100.0	3,180
BIOLOGY	WOMEN	45.4	11.9	57.4	6.7	6.9	.2	3.6	4.2	.4	20.7	100.0	2,337
	BOTH	45.0	11.1	56.2	6.5	7.5	4.3	1.5	3.8	.3	19.8	100.0	5,517
	MEN	56.0	7.6	63.6	4.9	7.8	4.2	.0	2.9	.3	16.3	100.0	906
CHEMISTRY	WOMEN	44.0	11.7	55.7	4.9	9.8	.0	2.6	3.6	1.6	21.8	100.0	386
	BOTH	52.4	8.8	61.2	4.9	8.4	2.9	.8	3.1	.7	18.0	100.0	1,292
	MEN	36.3	8.2	44.5	6.6	5.4	10.0	.0	8.4	.2	24.8	100.0	499
PHYSICS	WOMEN	28.1	6.3	34.4	3.1	7.3	.0	12.5	13.5	1.0	28.1	100.0	96
	BOTH	35.0	7.9	42.9	6.1	5.7	8.4	2.0	9.2	.3	25.4	100.0	595
	MEN	34.7	9.2	43.9	8.2	8.6	8.4	.0	7.9	.8	22.4	100.0	17,140
SOCIAL STUDIES	WOMEN	34.2	9.4	43.5	8.6	7.0	.9	4.9	8.5	.9	25.7	100.0	11,647
	BOTH	34.5	9.3	43.7	8.3	7.9	5.3	2.0	8.1	.8	23.7	100.0	28,787
TRADE, INDUST., VOC.,	MEN	36.8	13.4	50.2	8.3	4.4	7.8	.0	4.9	.4	24.1	100.0	819
TECH., ...	WOMEN	21.1	24.8	45.9	28.5	1.6	8.9	2.4	.4	.0	12.2	100.0	246
	BOTH	33.1	16.1	49.2	13.0	3.8	8.1	.6	3.8	.3	21.3	100.0	1,065
OTHER SEC. SCHOOL	MEN	41.6	11.6	53.1	4.8	6.3	4.3	.0	3.5	.2	27.8	100.0	604
SUBJECTS	WOMEN	31.0	9.5	40.4	4.3	6.7	.0	3.6	2.4	5.9	36.7	100.0	507
	BOTH	36.7	10.6	47.3	4.6	6.5	2.3	1.6	3.0	2.8	31.9	100.0	1,111
	MEN	41.0	11.8	52.7	7.4	7.2	7.8	.0	5.0	.5	19.4	100.0	63,600
SECONDARY TOTAL	WOMEN	42.6	12.0	54.6	8.0	5.8	.5	4.6	5.8	.6	20.3	100.0	78,110
	BOTH	41.8	11.9	53.7	7.7	6.5	3.7	2.5	5.4	.5	19.9	100.0	141,710
UNGRADED													
	MEN	44.9	12.3	57.1	6.0	4.5	2.5	.0	1.7	.4	27.8	100.0	1,386
SPECIAL EDUCATION	WOMEN	53.6	12.5	66.1	3.1	5.2	.2	2.0	1.5	.1	21.7	100.0	6,715
	BOTH	52.1	12.5	64.6	3.6	5.0	.6	1.7	1.5	.2	22.8	100.0	8,101
	MEN	38.9	21.3	60.2	10.0	3.2	1.4	.0	1.8	.5	23.1	100.0	221
LIBRARIAN	WOMEN	51.7	9.7	61.5	5.6	3.3	.1	2.5	3.5	.4	23.1	100.0	1,502
	BOTH	50.1	11.2	61.3	6.2	3.3	.3	2.2	3.3	.4	23.1	100.0	1,723
	MEN	42.6	11.6	54.2	4.7	3.0	2.3	.0	3.3	.1	32.4	100.0	1,643
GUIDANCE COUNSELOR . . .	WOMEN	44.3	8.0	52.3	5.5	1.9	.7	3.2	2.2	.1	34.0	100.0	1,646
	BOTH	43.5	9.8	53.3	5.1	2.5	1.5	1.6	2.8	.1	33.2	100.0	3,289
	MEN	37.4	5.8	43.2	9.0	9.7	7.1	.0	3.2	.6	27.1	100.0	155
SCHOOL PSYCHOLOGIST . . .	WOMEN	23.3	4.9	28.2	6.3	2.9	1.9	4.9	3.9	1.9	50.0	100.0	206
	BOTH	29.4	5.3	34.6	7.5	5.8	4.2	2.8	3.6	1.4	40.2	100.0	361
	MEN	22.2	5.6	27.8	.0	.0	.0	.0	.0	.0	72.2	100.0	18
SCHOOL SOCIAL WORKER . .	WOMEN	14.9	.0	14.9	.0	.0	.0	.0	.0	.0	85.1	100.0	47
	BOTH	16.9	1.5	18.5	.0	.0	.0	.0	.0	.0	81.5	100.0	65
	MEN	37.0	35.2	72.2	.0	.0	.0	.0	.0	.0	27.8	100.0	54
SCHOOL NURSE	WOMEN	49.0	7.1	56.2	14.1	1.0	1.0	1.6	.4	.0	25.8	100.0	504
	BOTH	47.8	9.9	57.7	12.7	.9	.9	1.4	.4	.0	26.0	100.0	558
	MEN	28.9	5.8	34.7	4.6	1.6	9.1	.0	9.2	.1	40.8	100.0	1,445
OTHER UNGRADED	WOMEN	36.2	8.4	44.7	4.9	4.3	.0	8.6	8.6	.1	28.8	100.0	1,741
	BOTH	32.9	7.3	40.1	4.8	3.1	4.1	4.7	8.9	.1	34.3	100.0	3,186
	MEN	41.8	12.3	54.1	7.3	6.4	7.1	.0	4.7	.5	19.9	100.0	79,952
GRAND TOTAL	WOMEN	50.0	12.2	62.3	5.2	4.1	.2	4.2	4.6	.4	17.6	100.0	179,275
	BOTH	47.5	12.3	59.7	5.8	4.8	2.4	2.9	4.6	.5	19.7	100.0	259,227

FIGURE II

BACHELOR'S AND FIRST PROFESSIONAL DEGREES CONFERRED, 1938 TO 1972 BIENNIALLY



SOURCE -
U.S. OFFICE OF EDUCATION REPORTS AND PROJECTIONS OF EDUCATIONAL STATISTICS TO 1979-80.

NEA RESEARCH DIVISION

TABLE 8.–PERCENTS OF TEACHER EDUCATION GRADUATES ENTERING CLASSROOMS IMMEDIATELY FOLLOWING GRADUATION, 1954-1970, BY SUBJECT AREAS

Subject or level	1954	1956	1958	1960	1962	1964	1966	1968	1970
1	2	3	4	5	6	7	8	9	10
Elementary school, regular instruction	79.9	80.8	83.3	82.2	82.3	81.2	80.8	78.9	69.1
High-school subjects:									
Agriculture	41.0	50.6	47.3	47.5	56.2	52.7	45.5	56.8	50.5
Art[a]	62.6	66.5	70.5	70.5	70.1	66.8	67.2	63.3	55.1
Business education	58.1	56.2	59.8	60.7	63.3	62.7	65.4	61.4	49.7
English	67.9	68.4	73.1	73.5	74.7	70.9	71.8	67.1	56.3
Foreign languages[a]	56.0	62.1	68.9	69.6	72.4	70.0	69.4	62.6	53.8
Home economics	66.4	65.2	65.3	65.5	65.9	64.7	63.1	63.9	53.4
Industrial arts	57.1	61.5	68.9	68.6	72.2	73.9	72.8	70.9	64.1
Journalism	59.3	26.5	56.2	53.2	38.8	60.9	59.5	54.1	42.8
Library science	85.6	76.8	78.0	77.8	81.8	82.5	69.0	67.5	61.3
Mathematics	59.0	66.3	75.8	74.2	73.9	74.1	70.8	71.2	65.3
Music[a]	68.5	68.9	74.5	74.2	72.9	70.1	71.0	68.4	61.9
Physical education–Men[a]	47.1	60.2	66.1	64.3	69.1	65.7	65.4	66.4	55.9
Physical education–Women[a]	76.3	78.2	79.5	79.6	84.2	80.3	78.3	73.9	63.5
General science	52.0	64.2	73.5	71.0	73.5	67.4	69.9	62.4	62.0
Biology	45.4	58.5	65.0	66.2	68.3	66.7	67.6	67.7	56.2
Chemistry	36.1	54.3	65.3	64.4	65.0	61.8	60.5	64.3	61.2
Physics	51.5	47.3	69.6	62.1	66.7	60.1	61.4	64.5	42.9
Social studies	51.8	59.8	65.2	64.9	64.2	60.5	60.2	58.0	43.7
Speech and drama	57.8	61.5	69.9	65.9	65.9	61.4	60.5	58.8	46.3
Total, high-school subjects[b]	55.7	63.2	67.8	68.1	69.2	67.0	66.7	64.7	54.2
Grand total[b]	65.8	70.7	73.7	73.6	74.4	72.7	72.2	70.3	59.7

[a]Includes persons prepared to teach the subject in elementary schools.
[b]Includes persons prepared for ungraded assignments, and subject matter assignments in elementary schools.

TABLE 9.–ESTIMATE OF THE SUPPLY OF 1971 TEACHER EDUCATION GRADUATES AVAILABLE TO ENTER CLASSROOMS BY NOVEMBER 1, 1971

Level or subject	Number expected to complete preparation	Number available for employment in fall 1971[a]
1	2	3
Elementary school (total)	118,775	98,939
Regular instruction	114,879	95,694
Art	1,275	1,062
Foreign language	287	239
Music	1,213	1,010
Physical and health education	1,121	934
Secondary school (total)	176,237	121,956
Agriculture	1,761	1,219
Art	8,308	5,749
Business education	11,195	7,747
Distributive education	868	601
English	27,835	19,262
Journalism	395	273
Speech and dramatic arts	4,698	3,251
Foreign languages (total)	9,440	6,532
Home economics	8,615	5,962
Industrial arts	5,692	3,939
Junior high-school subjects	676	468
Mathematics	11,859	8,206
Music	8,357	5,783
Physical and health education	22,082	15,281
Natural and physical sciences (not specified)	1,797	1,244
General natural and physical sciences	1,540	1,066
Biology	7,197	4,980
Chemistry	1,550	1,073
Physics	702	486
Social studies (total)	37,755	26,126
Trade, industrial, vocational, technical	910	630
Other secondary-school subjects	3,005	2,078
Ungraded		
Special education	10,715	8,926
Librarian	1,710	1,183
Guidance counselor	4,787	3,313
School psychologist	665	460
School social worker	42	29
School nurse	639	442
Other ungraded	4,034	2,792

[a]Based on an entry rate of 83.3 percent of graduates prepared to teach in elementary grades and in special education; 69.2 percent of graduates prepared to teach secondary-school grades and other ungraded assignments.

THE DEMAND FOR NEW TEACHERS

THIS SECTION CONTAINS estimates of the demand for new teachers and the demand for beginning teachers. The separate estimate of the demand for beginning teachers allows comparison with the supply of beginning teachers reviewed in the previous section of this report. Following a review of the difference between the estimated demand for new and beginning teachers are descriptions of two criteria for estimating the demand for new teachers. Finally, this section provides an estimate of the demand for beginning teachers by type of teaching assignment.

Difference Between Demand for New and Demand for Beginning Teachers

A new teacher is a person entering or re-entering active status who was not employed as a full-time teacher during the preceding school year. A beginning teacher is a person entering active employment as a full-time teacher for the first time. Therefore, the estimated demand for new teachers exceeds the demand for beginning teachers by the number of former teachers expected to re-enter teaching this year.

Estimates of the rate of re-entry of former teachers derived from six sampling studies between 1957-58 and 1968-69 range from 3.0 to 4.8 percent at the elementary school level and from 2.5 to 4.2 percent at the secondary school level. The rate of re-entry of former teachers being estimated for 1971 is 3.2 percent in elementary and 3.0 percent in secondary schools. This has been the standard estimate used in this series of studies since the 1967 edition.

Application of these rates to the total number of full-time teachers employed in 1970-71 (1,120,587 in elementary schools and 918,567 in secondary schools) provides an estimate that 35,900 former elementary-school teachers and 27,600 former secondary-school teachers will re-enter active employment as teachers in fall 1971 following an interruption of at least one year.

An alternate estimate of the demand for experienced teachers to re-enter active employment has been derived from data reported by 20 states. These states reported the proportion of the new teachers employed in 1970-71 who were re-entering after at least one year out of teaching. The information underlying this estimate is reviewed in Tables 13 and 16. This estimate calls for the employment of 28,000 re-entering teachers at the elementary school level and 25,000 at the secondary school level.

Limited information from sampling studies and from the employment rates of 1970 graduates prepared to teach indicates that school systems may be currently filling a larger than normal proportion of their position vacancies with beginning teachers. This would mean that the alternate or lower estimate of the number of re-entering teachers to be employed for 1971-72 may be the more accurate estimate of the numbers which will actually locate employment as teachers.

Criteria for Estimating Demand for New Teachers

Two equally useful estimates of the demand for new teachers are presented in this report. The first shows the demand for teachers related to a minimum standard, the second reviews the demand for teachers related to current practices, including the adjustment of recent trends.

Components of the first estimate are the minimum standards of staffing characteristics required for effective instruction in the public schools. This estimate is based on an assumption that the demand for teachers must be related to achieving at least the minimum level of quality in staffing for public education. The estimate based on this assumption is termed the *Quality Criterion Estimate* (QCE).

The second estimate is based on a continuation of the trends in the improvement of staffing characteristics of public schools in recent years. This second estimate is termed the *Adjusted Trend Criterion Estimate* (ATCE).

The numbers of new teachers required by each criterion for estimating the demand for new teachers in 1971-72 are presented and discussed in the following sections.

The Quality Criterion Estimate

The *Quality Criterion Estimate* is based on the number of new teachers needed to achieve immediately a standard for *minimum* quality in the staffing of public-school classrooms. The following are discussed separately as components of this estimate: (a) the number of new teachers needed to fill new positions being created to accommodate enrollment changes, and to continue trends toward improved staffing; (b) the number of new teachers needed to replace the teachers who are interrupting or terminating their careers; (c) the number of teachers having substandard professional qualifications who need to be upgraded or replaced; (d) the number of new teachers needed to reduce overcrowded classes to reasonable maximum sizes; and (e) the number of new teachers needed to provide adequate staffing of new educational offerings, added special instructional services, and reorganization for instruction.

The *Quality Criterion Estimate* of teacher demand should be useful to the teaching profession, civic leaders, public officials, and research analysts in assessing the manpower requirements for attaining minimum quality in public education. This estimate shows the demand for teachers required by a minimum level of quality in the staffing prac-

tices applied to all classrooms without consideration to the obstacles to attaining this standard immediately.

The Demand for New Teachers, Based on the Quality Criterion Estimate–Summarized in Table 10 are the estimated numbers of new teachers needed to achieve the *Quality Criterion* in each of several components of teacher demand. The estimated total demand for 793,400 new teachers is an increase of 565,800 positions (27.7 percent) over the number of full-time teachers employed in the fall of 1970. The components of this estimate are described in the following paragraphs.

Increased Enrollment–The U.S. Office of Education has estimated that in fall 1971 the number of full-time and part-time elementary-school teachers in public schools will decrease by 8,000; and secondary-school teachers will enlarge by 27,000. These estimates of staff include an expectation of a continuation of trends toward improved staffing. These estimated changes represent 0.7 percent of the number of full-time elementary-school teachers in fall 1970 (1,120,587), 2.9 percent of the number of full-time secondary-school teachers (918,567), and 0.9 percent of the total number of public-school teachers (2,039,154).

The estimated change in the numbers of full-time public-school teachers (-8,000 in elementary schools and +27,000 in secondary schools) is used in the remainder of this report to calculate the number of new teachers needed to fill new positions created to continue recent trends of staffing improvements as well as to provide instructional services for the enlarged enrollments. Owing to the use of projections of staffing as related to enrollments in recent years, this estimate may reflect a small part of the demand for new teachers estimated separately in some other components.

Teacher Turnover–Earlier studies in this series have used an estimate that the number of positions vacated by teachers who leave the profession each year equals about 8 percent of the total number of teachers. Information from recent studies provided a planning estimate for the 1967 edition of this series. The same rates are used for the 1971 edition (8.1 percent of elementary-school teachers and 8.6 percent of high-school teachers).

Applying these estimates to the number of full-time elementary- and full-time secondary-school teachers in 1970-71, provides the following estimates of demand for new and beginning teachers in fall 1971 to fill positions created by teacher turnover:

Level	Turnover-based demand in 1971-72 for	
	New teachers	Beginning teachers
Elementary school	90,800	54,900
Secondary school	79,000	51,400
Total	169,800	106,300

Replacement of Teachers Having Substandard Qualifications–These estimates are based on an assumption that the minimum educational requirement for qualified teachers is completion of the bachelor's degree and the teachers having less than a bachelor's degree need to be upgraded or replaced. For many of these teachers who lack only one or two years of college this replacement may be on a short-term basis while they return to teacher preparation institutions to complete their degree.

Data from a sample survey of teachers provide an estimate that 3.5 percent of all elementary-school teachers in 1970-71 lacked the bachelor's degree. Applying this percentage to the total number of full-time elementary-school teachers in 1970-71 provides an estimate that 39,221 elementary-school teachers lacked the bachelor's degree. The estimated demand for 31,400 elementary-school teachers allows for about 20 percent of the 39,221 elementary-school teachers lacking the bachelor's degree to have completed the degree requirements or to have resigned prior to the 1971-72 session.

A similar procedure was used to estimate the number of secondary-school teachers having substandard qualifications (1.6 percent) and needing to be replaced (80 percent of 14,697 teachers).

Reduction of Overcrowded Classes–A national survey by the NEA Research Division in 1970-71 provides a general estimate of the distribution of class size and teacher load in public schools. These percentage distributions were ap-

TABLE 10.–ESTIMATED DEMAND FOR NEW TEACHERS, BASED ON THE QUALITY CRITERION

Source of demand	Estimated demand for new teachers		
	Elementary	Secondary	Total
1	2	3	4
Staff requirement of increased enrollment	-8,000	27,000	19,000
Teacher turnover ...	90,800	79,000	169,800
Replacement of teachers having substandard qualifications	31,400	11,700	43,100
Reduction of overcrowded classes	228,300	173,900	402,200
Special instructional services	98,400	60,900	159,300
Total	440,900	352,500	793,400

plied to the total number of full-time teachers in the fall of 1970 to obtain an estimate of the number of persons who may have been assigned extremely large classes during 1970-71.

The intervals in these distributions provide a base for these estimates of the minimum numbers of additional teachers needed to reduce maximum size of classes in elementary schools to no more than 24 pupils each and the maximum average daily teacher load in secondary schools to no more than 124 pupils.

This component of the Quality Criterion has been changed from the standard used in previous editions of this survey (34 pupils in elementary classes and teacher load of no more than 199 pupils in secondary schools). Based on these earlier standards the class size component of the Quality Criterion would require the addition of 23,500 teachers instead of the 402,200 teachers required for the revised standard.

Special Instructional Services—In this classification are the new teachers needed to provide special instructional services, enlarge the scope of educational offerings, and provide special programs for pupils having special learning needs (physically, mentally, and emotionally handicapped, the culturally disadvantaged, etc.). It is estimated that at least 159,300 additional teachers are needed for this component of demand. It is not feasible to establish an accurate estimate of the demand for new teachers resulting from this component because prescriptive statements of minimum standards and precise data about present conditions are nonexistent or limited.

Minimally, 29,500 new teachers are needed to provide kindergarten for the same proportion of five- and six-year-old children as the proportion of seven-year-olds now enrolled in school. This estimate does not include the number of new teachers needed to replace present kindergarten teachers having substandard qualifications, to replace present kindergarten teachers who interrupt or terminate their careers, or to provide improvement of the teacher-pupil ratio at this level of instruction.

At least 200 new teachers are estimated to be needed to enlarge offerings in elementary and secondary schools which have curtailed enrollments in programs of instruction having a critical shortage of qualified applicants. It is not possible to estimate the extent that schools have limited offerings or no offerings in industrial arts, physical sciences, mathematics, and vocational-technical subjects as a result of the chronic short supply of qualified applicants.

At least 14,700 new teachers are needed to reduce the impact of misassignment of teachers in elementary and secondary schools. These represent about one-sixth of the proportion of teachers estimated in 1965-66 to be teaching full-time in fields other than those of their major preparation—many have improved their preparation following graduation and, with the improving supply-demand situation, many may have moved into more appropriate assignments. This estimate does not include the number of new teachers needed to reduce the effect of the additional 41,100 teachers who are misassigned for more than half but not all of their teaching time (one-sixth of the number estimated based on the proportion derived in 1965-66).

At least 114,900 new teachers are needed to make significant progress toward providing special education to children and youth who require it. This estimate is about two-thirds of the number of new teachers (172,500) which would be needed this year to provide separately organized special education classes for the 10 percent of school-age children and youth needing this program. These estimates do not include the number of new teachers needed to replace present special education teachers having substandard preparation and the demand created by normal turnover of teachers in these assignments.

Estimated Demand for Beginning Teachers Based on the Quality Criterion—Listed below are the estimated numbers of new and beginning teachers needed to achieve the demand based on the *Quality Criterion Estimate.*

	Number of teachers		
	Elementary	Secondary	Total
Demand for new teachers based on the Quality Criterion Estimate	440,900	352,500	793,400
Expected re-entry of former teachers	35,900	27,600	63,500
Demand for beginning teachers	405,000	324,900	729,900

The Adjusted Trend Criterion Estimate

The *Adjusted Trend Criterion* provides an estimate of the number of new teachers who will actually be employed by public school systems in the school year 1971-72 as indicated by recent staffing practices. This estimate is projected from information about the numbers of new teachers employed in recent years. The demand for new teachers in this estimate reflects a continuation of current trends toward improved staffing conditions rather than immediate achievement of the standards of minimum quality in the staffing of classrooms provided by the *Quality Criterion Estimate.*

The projections based on the *Adjusted Trend Criterion* should be especially useful to college and university counselors of potential teachers, to individuals planning careers in teaching, to former teachers considering re-entry into teaching, and to educational leaders. This projection provides an estimate of the immediate condition of the demand for teachers—the minimum number of employment opportunities for beginning and re-entering teachers during the school year 1971-72.

The Demand for New Teachers, Based on the Adjusted Trend Criterion Estimate—Estimates of the number of teaching positions to be filled by the supply of new teachers for the opening of a given school session may be based on trends observed in two components reviewed earlier: (a) positions being created or eliminated as a result of changes in enrollment, organization for instruction, and in the pupil-teacher ratio; and (b) positions created by the teachers who are interrupting or terminating their careers in the public schools during or at the close of the school year.

These are the first two components of the *Quality Criterion Estimate* listed in Table 10.

Combination of the estimates from the two components of demand reviewed above provides an estimate that the number of new teachers for whom employment is virtually assured in 1971-72 is 82,800 in elementary schools and 106,000 in secondary schools. These estimates include the demand for 46,900 beginning teachers in elementary schools and 78,400 beginning teachers in secondary schools.

The trends in demand for qualified public-school teachers for a given school year may be changed as a result of changes in various factors such as the following:

- Major modification in the school program and assignment load of teachers
- Enrollment growth related to enlarged educational programs
- Reduction in the ratio of pupils per teacher to provide special programs being encouraged through federal and state legislation
- Change in the rate by which persons having substandard qualifications are being replaced
- Elimination of large classes.

Some of these conditions have been influencing the demand for new teachers during the past several years. The trends in staffing practices observed in the past are included in the data used to derive the estimates of teacher demand based on the *Adjusted Trend Criterion.*

Summary of the Estimates of Demand for New Teachers

Listed below are the total numbers of new teachers who will be needed in the fall of 1971 as determined by the two criteria. An estimate of the demand for beginning teachers may be obtained by subtracting the 35,900 elementary and 27,600 secondary-school teachers expected to re-enter the profession.

Base	Number of new teachers in demand for fall 1971		
	Elementary	Secondary	Total
Adjusted Trend Criterion Estimate	82,800	106,000	188,800
Quality Criterion Estimate	440,900	352,500	793,400

Characteristics of Demand for New Teachers as Suggested by Assignments in Selected States

Varying numbers of states have reported the number of new teachers employed and their assignments as part of the past 23 surveys of teacher supply and demand. (These included experienced teachers returning to the classroom as well as the beginning teachers.) For recent studies the states were asked also to report for each assignment the total numbers of teachers and the number of new teachers who are re-entering active service following an interruption of at least one year. The summary of information from the the states which were able to report data for 1970-71 is provided in Table 11.

The distribution of the new teachers among teaching assignments in 1970-71 provides an estimate of the comparative demand between elementary- and high-school levels and among selected assignment areas. As in earlier studies of this series, a general estimate of the 1971-72 demand for new teachers in each subject is projected by applying the percentage distribution of new teachers reported last year to the total estimated demand for new teachers this year.

Several states reported additional information about the percent of the total number of teachers in each assignment who were new teachers, and the percent of new teachers who are re-entering teachers. This information provides the source for an alternate estimate of the number of new and beginning teachers to be employed in 1971-72.

Relative Demand for New Teachers Among High-School Subjects, Adjusted Trend Criterion Estimate

The distribution of new teachers among the assignments reported by 26 states provides the basis for an estimate of the number of new teachers needed in each assignment in 1971-72. Summarized in column 2 of Table 12 are the numbers of new teachers which will be employed in each assignment in 1971-72 if the percentage distribution of new teachers observed last session in 26 states is projected to the estimated total number of new teachers to be employed in 1971-72.

The basis for an alternate estimate of the 1971-72 demand for new teachers in each assignment is provided by additional information reported for the fifth time in the present study. The reports of several states contained one or more of the following data by each teaching assignment: The total number of teachers, the number of new teachers, and the number of new teachers who were re-entering active status in 1970-71 following an interruption of at least one year. This additional information allows an estimate of the demand for new teachers for each assignment separately, based on information which reflects the combined influence of growth in total number of persons and the rate of teacher turnover.

Only 22 states were able to supply the total numbers of teachers in each assignment area. To allow correction for the likelihood that the summary distribution from these states is not representative of the national pattern, a second estimate of the distribution of all teachers by assignment areas was derived by using information from NEA Research Division sampling studies conducted during the past seven years.

Listed in column 4 of Table 11 are the medians of the percents of the staff in each major assignment who were new teachers in the reporting states. The percents varied

TABLE 11.–NUMBER AND PERCENT OF NEW TEACHERS, PERCENT OF STAFF WHO WERE NEW TEACHERS, AND PERCENT OF NEW TEACHERS WHO RE-ENTERED IN 1970-71, BY ASSIGNMENT

Assignment	Number of new teachers, 26 states	Percent distribution of new teachers, 26 states	Median percent of staff who were new teachers, 22 states	Median percent of new teachers who were re-entering, 20 states
1	2	3	4	5
ELEMENTARY				
Regular instruction	43,327	87.8	10.8	26.4
Selected subjects				
Art	845[a]	1.7[a]	17.0[b]	25.0[c]
Foreign language	153[d]	0.3[d]	16.7[c]	6.3[e]
Music	1,472[f]	3.0[f]	12.5[f]	40.6[d]
Physical and health education	1,578[g]	3.2[g]	16.2[a]	23.6[d]
Special education	1,954[h]	4.0[h]	13.6[b]	27.7[b]
Total classroom instruction	49,329	100.0	...	...
Librarian	418[h]	...	6.4[d]	31.4[i]
Guidance counselor	72[d]	...	5.6[i]	40.0[j]
SECONDARY				
Agriculture	452[g]	1.0[g]	9.3[f]	16.7[f]
Art	1,602	3.4	13.0	25.0
Business education	2,673	5.6	11.5	23.4
Distributive education	243[h]	0.5[h]	13.9[b]	11.8[b]
English language arts	8,591	19.5	13.5	22.9
Foreign language (total)	2,736	5.8	13.9	19.3
Home economics	1,946	4.1	12.7	24.5
Industrial arts	1,685	3.6	9.5	24.2
Junior high school	2,680	[k]	14.9[i]	17.9[m]
Mathematics	4,932	11.8	11.8	21.2
Music	1,944	4.1	12.2	28.5
Physical and health education (total)	4,176[n]	8.8[n]	12.4[h]	19.4[f]
Men	[o]	...	8.5[l]	19.2[m]
Women	[o]	...	16.3[l]	23.1[m]
Natural and physical sciences (total)	4,560[q]	11.0	12.0	20.9
Social studies (total)	4,877	11.7	10.7	30.4
Trade, industrial, vocational, technical	900[p]	1.9[p]	10.7[f]	26.9[d]
Special education	1,797[g]	3.8[g]	14.6[d]	33.3[b]
Other secondary subjects	1,632[f]	3.4[f]	13.7[e]	19.3[e]
Total classroom instruction	47,426	100.0	...	...
Librarian	848[n]	...	8.1[h]	43.8[f]
Guidance counselor	758[n]	...	3.6[h]	76.9[f]

[a] Information from 20 states. [b] Information from 17 states. [c] Information from 15 states. [d] Information from 18 states. [e] Information from 14 states. [f] Information from 19 states. [g] Information from 23 states. [h] Information from 21 states. [i] Information from 16 states. [j] Information from 13 states. [k] Information from 10 states was distributed equally among English Language Arts, mathematics, natural and physical sciences, and social studies. [l] Information from 7 states. [m] Information from 9 states. [n] Information from 25 states. [o] Information from 11 states (among these, men represented 45.1 percent of all new physical and health education teachers). [p] Information from 24 states.

widely among the reporting states. The variation of these rates among the reporting states suggests that the median percent does not provide a precise estimate—that the numbers of new teachers projected from these data should be interpreted only in very general terms.

The estimates shown in column 4 of Table 11 list the percents of total staff represented by new teachers observed when the total number of teachers increased by 2.3 percent in elementary schools and by 2.5 percent in secondary schools. The projected growth in total number of teachers between 1970-71 and 1971-72 is estimated to be minus 0.7 percent in elementary schools and plus 2.9 percent in secondary schools. The total demand for new teachers in 1970-71 (for both staff enlargement and turnover) repre-

TABLE 12.—SUMMARY OF TWO ADJUSTED TREND CRITERION ESTIMATES OF THE DEMAND FOR NEW TEACHERS IN 1971-72

Assignment	Projected total 1971-72 demand distributed as reported by 26 states in 1970-71	Projection of total demand based on the relation of new staff to total staff in assignment in 1971-72 on basis of estimated total staff distribution from national sampling studies
1	2	3
ELEMENTARY (total)	(82,800)	(106,017)
Regular instruction	72,698	100,924
Selected subjects		
Art	1,408	823
Foreign languages	248	484
Music	2,484	1,091
Physical and health education	2,650	2,039
Special education	3,312	656
SECONDARY (total)	(106,000)	(111,528)
Agriculture	1,060	860
Art	3,604	2,762
Business education	5,936	6,037
Distributive education	530	...
English language arts	20,670	25,838
Foreign languages	6,148	6,430
Home economics	4,346	5,394
Industrial arts	3,816	4,221
Junior high school	[a]	...
Mathematics	12,508	15,224
Music	4,346	4,276
Physical and health education:		
Men	4,210[b]	3,453[c]
Women	5,118[b]	5,263[c]
Natural and physical sciences	11,660	13,608
Social sciences	12,402	14,893
Trade, industrial, vocational	2,014	1,688
Special education	4 028	947
Other subjects	3,604	634

[a] Information reported by 10 states provides an estimate that 5,804 new teachers will be needed; these have been apportioned equally among English, social studies, mathematics, and science.

[b] Projected from information reported by 11 states.

[c] Projected from information reported by seven states.

sented 8.6 percent of the 1970-71 staff in elementary schools and 11.5 percent of the 1970-71 staff in secondary schools. The projected total demand for new teachers in 1971-72 represents 7.4 percent of the 1971-72 staff in elementary schools and 11.2 percent of the 1971-72 staff in secondary schools. The ratio of the percent of 1971-72 staff represented by the estimated demand for new teachers in 1971-72, to the percent of the 1970-71 staff represented by the demand for new teachers in 1970-71 was 0.870 at the elementary level and 0.978 at the secondary level. The projected percents of 1971-72 staff in each subject who will be new teachers were derived by applying these ratios to the percents of staff in the subject who were new teachers in 1970-71.

This procedure does not provide for change in the relative rates of growth among the teaching assignments. Additional information about such variation is needed to allow further correction of the projection of teacher demand.

The projected percent of staff expected to be new teachers in 1971-72 was applied to the estimated total number of teachers in each assignment in 1971-72, and the resulting estimate of the demand for new teachers is listed in column 3 of Table 12. In this estimate, the sum of the demand for new teachers among the assignments is 15 percent larger than the total demand estimated for elementary and secondary levels as a whole, listed in column 2.

The information in column 2 of Table 12 provides an estimate which is consistent in method of calculation with those used in earlier reports of this series. The estimate in column 3 of Table 12 is used throughout the remainder of this study as an alternate estimate of the demand for new teachers in 1971-72.

Estimated Demand for Beginning Teachers

The numbers of teachers who may be expected to re-enter active employment following an interruption of at least one year influence the demand for beginning teachers. The rate of re-entry in 1971-72 in elementary- and secondary-school assignments is estimated to be 3.2 percent of all elementary-school teachers and 3.0 percent of all secondary-school teachers in 1970-71; the same rates were estimated last year. The estimated demand for beginning teachers based on an assumption that the total numbers of re-entering teachers are distributed among the assignments on the same basis as the total number of new teachers, as has been the practice in earlier studies of this series, is listed in column 3 of Table 16.

Information from 20 states reporting both the number of new teachers and the number of re-entering teachers in 1970-71 in each assignment provides the base for an alternate estimate of the demand for beginning teachers which allows for the possibility of differences among the assignments in the rate of re-entry of qualified former teachers. The estimate listed in column 4 of Table 16 results from applying the median percent of new teachers who were re-entering (listed in column 5 of Table 11) to the estimated demand for new teachers (listed in Table 12, column 3).

SUPPLY COMPARED WITH DEMAND FOR NEW TEACHERS

ESTIMATES OF THE SUPPLY of teacher education graduates prepared to enter teaching positions in 1971 and estimates of the number of teaching positions to be filled by these graduates have been presented. A comparison of the numbers of positions included in these estimates provides a general indication of the adequacy of the present supply of beginning teachers and identifies the fields of specialization in which the estimated number of beginning teachers in supply and demand are out of balance. Also provided in this section are estimates of the status of the current supply of beginning teachers as compared with conditions in earlier years.

Supply of Graduates Compared with Demand

The number of new teachers employed and the number of graduates of teacher preparation programs in the reporting states provide an estimate of the status of the supply compared with demand based on the *Adjusted Trend Criterion*.

Information about the number of new teachers in 1970-71 and their assignments reported by 26 states was summarized in Table 11 in the preceding section. The total numbers of new teachers and the numbers of persons completing teacher education programs in 26 states in 1970 are listed in Table 13. Caution should be used in analyzing the data contained in Table 18 since the number of prospective teachers being educated in a given state may not represent the actual supply of beginning teachers for the state because of nonresident graduates and migration of resident graduates. Also limiting the accuracy of comparisons based on these figures is the possibility that experienced former teachers may be in greater supply, or demand, in some subjects than in others. This would modify the estimated relative demand for beginning teachers to fill the positions listed as being filled by new teachers.

Table 13 shows that for these 26 states the area in which the supply of beginning teachers is least adequate is the trade-industrial-vocational subjects. If the entire class of teacher education graduates in these 26 states entered teaching, the supply of *beginning* teachers in these subjects would not equal the demand for *new* teachers. However, if the number of persons expected to re-enter teaching in these subjects is considered, it is likely that the potential supply of beginning teachers is near the level of demand. The limited information about supply and demand for assignments in elementary-school selected subjects, junior high school subjects, and librarians suggests that these have an inadequate supply. However, the limitations in the availability of data about these assignments require that the results be interpreted with caution.

Trends in Supply and Demand in Reporting States

Information in Table 14 provides an estimate of trends in supply and demand conditions as observed in the reporting states in four-year intervals since 1948-49. The composition of the participating groups changes each year; this reduces the validity of comparisons over the years. The table shows that in the participating states the supply of qualified beginning elementary-school teachers has increased recently to exceed the numbers of new teachers employed. Mathematics teachers, who comprise about 11 percent of the new high-school teachers, also have consistently been in relatively low supply in these selected years, but the number of graduates now has exceeded the number of new teachers employed. The sciences, involving about 10 percent of new teachers, have been in relatively short supply, but this condition has changed in 1970. In each of the assignments for which reasonably accurate data are available, the information in Table 14 shows the recent change from annual estimates of shortages to an estimate of a generally adequate supply for 1970-71.

Supply of Beginning Teachers Compared with Total Number of Teachers Employed

An estimate of the present status of teacher supply and demand may be provided by a comparison over several years between the number of prospective teachers being graduated and the total number of teachers employed. Allowance should be made for changes in the influence of annual growth of the teaching staff and differences in the proportion of teachers leaving the profession. Normally the proportion of the total number of teachers represented by the number of graduates completing teacher education would not be expected to vary widely if the new supply is keeping pace with changes in the total demand for teachers.

Shown in Table 15 are the percents of the total number of teachers represented by the number of teacher education graduates ready for entry each year since 1955-56. During these years of marked growth in the size of the total staff, the number of prospective teachers has represented a gradually increasing proportion of the total staff size. A slight moderation in this proportion occurred at the high-school level in 1961-62, a year having a marked increase in the

growth of the secondary-school staff. The proportions reached record levels in 1968-69 and have established new records each succeeding year.

Supply of New Teachers Compared with Demand (QCE)

The estimated total supply of new teachers compared with the estimated total demand for new teachers based on the Quality Criterion is shown as follows:

	Number of new teachers		
	Elementary	Secondary	Total
Estimated demand (Quality Criterion)	440,900	352,500	793,400
Estimated supply* ..	139,302	153,263	292,565
Shortage	301,598	199,237	500,835

*Re-entry of former teachers equal to 3.2 percent of the number of full-time elementary- and 3.0 percent of the number of full-time secondary-school teachers in fall 1970. Entry into teaching by 83.3 percent of graduates prepared to teach at the elementary-school level and by 69.2 percent of graduates prepared to teach at the secondary-school level. Supply in special education apportioned between elementary and secondary.

The estimate shows a shortage of 501,000 teachers. It is difficult to estimate the number of qualified teachers who may be available for entry in the event that schools were financially able and had the facilities to employ the 793,400 persons estimated in the demand for new teachers. Therefore, this estimated shortage should be interpreted only in general terms.

Supply Compared with Demand (ATCE) for Beginning Teachers

A very general estimate of the status of teacher supply and demand in 26 states in 1970 is provided in Tables 13 and 14. The problem of nonresident enrollments and migration has reduced the precision of estimates of the supply of beginning teachers for this group of states. If it is assumed that the reporting states are representative of the nation in the pattern of demand for new teachers among the subject fields, this pattern may be used with the national estimated total demand for beginning teachers to obtain a national estimate of demand which is comparable with the national summary of the supply of beginning teachers by subject areas.

Listed in Table 16 are the estimated numbers of beginning teachers who will be available for entry into classrooms in fall 1971, the estimated demand for beginning teachers, the difference between the estimated supply and the estimated demand for beginning teachers, and the estimated number of former teachers expected to return to classrooms in fall 1971. The estimates of demand are based on the *Adjusted Trend Criterion* which projects the actual number of positions to be filled in fall 1971. The differences listed in columns 5 and 6 show the adequacy of the 1971 supply of beginning teachers in each assignment. The estimates in columns 3 and 5 are based on an assumption that the average rates of teacher turnover and re-entry are equally applicable among the subject areas. In subjects in which the rate of teacher separation is about average and the re-entry rate is lower than average, the demand for beginning teachers would be greater than the level estimated. For example, the supply of qualified personnel in the pool of former teachers may not be as adequate in some subjects as in others. In the subjects having a relatively limited supply of qualified former teachers the demand for beginning teachers would be increased.

Also, changes in the general status of employment opportunities for persons having the college degree may influence the turnover and re-entry rate observed in earlier years. The reduced availability of positions in other occupations may decrease the loss to the profession of teachers currently employed as well as increase the number of former teachers who may be considering re-entry into the profession. This general economic condition may decrease the demand for beginning teachers below the levels estimated in both column 3 and column 4 of Table 16. The numbers of former teachers expected to re-enter classrooms in fall 1971 following an interruption of at least one year are listed in columns 7 and 8 of Table 16. These show the estimated additional numbers of beginning teachers which would be needed if no former teachers re-entered classrooms in fall 1971.

The range of error in the information and in the assumptions leading to these estimates of supply and demand for beginning teachers requires that the numerical data be interpreted only in general terms. Therefore, the numerical differences provide only a suggestion of the comparative impact of supply and demand conditions in the various subject areas.

A summary of the ranked placement of the subject areas of teacher preparation in terms of the estimated condition of the supply and demand for beginning teachers is given in Table 17. The estimate of general condition is based on a combination of the information listed in columns 2 through 6.

The numerical differences between the estimated supply and the two estimates of the demand for beginning teachers (columns 2 and 3) show the condition of each assignment if the factors related to supply and demand operate as reported last year. The enlargement, rate of teacher turnover, and extent of re-entry of staff were influenced by some shortages in 1970 as well as continuation of the chronic shortages of qualified persons in several assignments. Possibly the pattern of the numbers of new teachers in the assignments would have been different if the supply of beginning teachers were more than adequate for each assignment.

The percent of qualified graduates entering the profession last year (column 4) provides an indication of the relative supply-demand condition among the assignments as well as a view of possible availability of qualified persons from earlier graduating classes. The size of these pools of qualified beginning teachers may be least adequate in the

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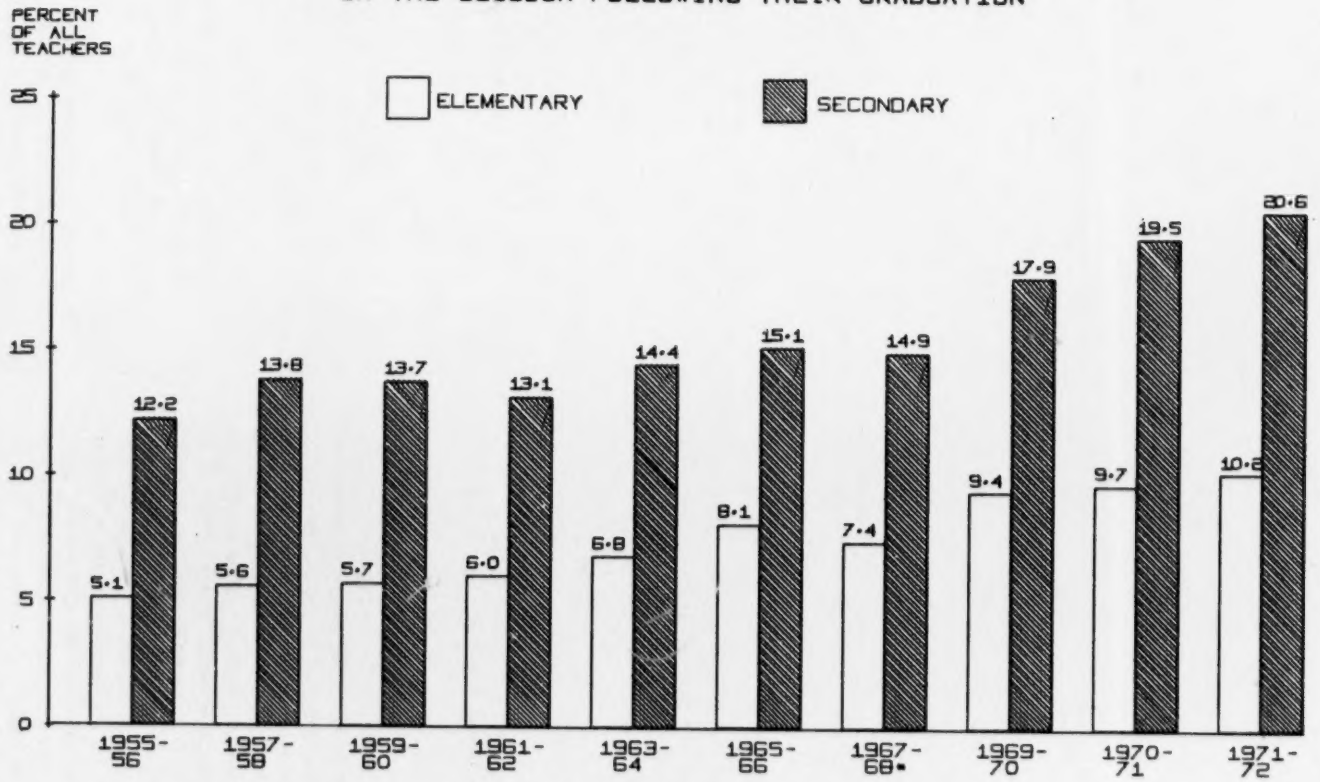
FIGURE III

TEACHER EDUCATION GRADUATES AS PERCENT OF ALL TEACHERS
IN THE SESSION FOLLOWING THEIR GRADUATION



*A FEW TEACHER PREPARATION INSTITUTIONS IN TWO STATES DID NOT PARTICIPATE IN THE 1967-68 STUDY, MAKING THE ESTIMATED NUMBER OF GRADUATES IN 1967 FROM 2 TO 6 PERCENT LOWER THAN THE PROJECTED ACTUAL DATA.

NEA RESEARCH DIVISION

TABLE 13.–COMPARISON OF THE TOTAL NUMBER OF TEACHER EDUCATION GRADUATES WITH THE NUMBER OF NEW TEACHERS EMPLOYED IN 26 STATES, 1970-71

Subject	Total number of teacher education graduates	Number of new teachers employed	Difference	Number of teacher education graduates as percent of new teachers employed
1	2	3	4	5
ELEMENTARY (total)	(52,559)	(47,375)	(5,184)	(110.9)
Regular instruction	50,953	43,327	7,626	117.6
Selected subjects:				
Art	497	845	-348	58.8
Foreign languages	115	153	-38	75.2
Music	580	1,472	-892	39.4
Physical and health education	414	1,578	-1,164	26.2
SECONDARY (total)	(81,190)	(45,629)	(35,561)	(177.9)
Agriculture	821	452	369	181.6
Art	3,468	1,602	1,866	216.5
Business education	5,654	2,673	2,981	211.5
Distributive education	264	243	21	108.6
English language arts (total)	15,384	8,591	6,793	179.1
Foreign languages (total)	4,605	2,736	1,869	168.3
Home economics	4,272	1,946	2,326	219.5
Industrial arts	2,462	1,685	777	146.1
Junior high school (general)	314	2,680	-2,366[a]	11.7[a]
Mathematics	5,799	4,932	867	117.6
Music	4,015	1,944	2,071	206.5
Physical and health education	10,558	4,176	6,382	252.8
Natural and physical sciences (total)	5,697	4,560	1,137	124.9
Social sciences (total)	16,529	4,877	11,652	338.9
Trade, industrial, vocational, technical	403	900	-497	44.8
Other	945	1,632	-687	57.9
UNGRADED (total)	(7,723)	(5,847)	(1,876)	(132.1)
Special education	4,223	3,751	472	112.6
Librarian	806	1,266	-460	63.7
Guidance counselor	2,694	830	1,864	324.6

[a] Supply data not comparable with demand data because students completing preparation are normally reported by subject instead of assignment level. Assignment is not considered to be in low supply because the supply is ample for general subjects taught at this level (English, social studies, mathematics, and science).

TABLE 14.–TEACHER EDUCATION GRADUATES AS PERCENT OF NEW TEACHERS EMPLOYED IN SELECTED STATES, 4-YEAR INTERVALS BETWEEN 1948-49 AND 1968-69, AND IN 1970-71

Level and subject	Percent of new teachers represented by number of teacher education graduates						
	1948-49	1952-53	1956-57	1960-61	1964-65	1968-69	1970-71
1	2	3	4	5	6	7	8
ELEMENTARY (total)	29.7	55.6	48.0	58.2	70.3	88.5	110.9
SECONDARY-SCHOOL SUBJECTS (total)	111.7	131.7	111.4	119.1	131.3	126.0	177.9
Agriculture	136.6	163.8	163.9	184.3	176.8	195.8	181.6
Art	117.1	264.5	139.5	154.4	165.4	140.9	216.5
Business education	103.0	147.1	134.2	158.5	168.7	190.2	211.5
English	95.8	105.9	73.0	73.7	95.9	119.6	179.1
Foreign languages	171.1	213.3	120.1	76.1	106.6	140.6	168.3
Home economics	114.6	137.9	128.3	141.7	170.6	180.3	219.5
Industrial arts	103.9	166.5	123.5	169.0	121.3	150.9	146.1
Journalism	103.3	82.1	78.4	59.2	93.8	[a]	[a]
Library science	65.5	69.6	35.0	27.9	39.1	170.0	63.7
Mathematics	73.6	108.8	58.2	73.1	79.6	79.1	117.6
Music	105.9	164.9	127.2	174.5	171.0	170.1	206.5
Physical education–men	148.1	278.9	185.0	286.0	283.0	206.7	252.8
Physical education–women	138.6	169.6	126.3	117.0	128.7		
General science	62.3	79.4	54.8	67.8	50.7		
Biology	114.8	270.9	199.3	143.3	246.2	87.3	124.9
Chemistry	135.9	200.0	107.8	107.3	112.2		
Physics	65.1	120.1	80.2	79.3	119.0		
Social studies	157.1	207.3	164.1	153.1	186.4	175.6	338.9
Speech	126.2	313.8	256.9	260.8	469.5	[a]	[a]
Other (special education, junior high school, vocational, distributive education, guidance)	...	246.7	40.8	73.6	87.0	45.8	88.1
Number of states reporting	21	26 + Alaska Hawaii D. C.	32 + Alaska D. C.	26 + D. C.	27 + D. C.	23 + D. C.	26

[a] Included with English.

TABLE 15.–ESTIMATES OF THE TOTAL NUMBER OF PUBLIC-SCHOOL TEACHERS AND THE NUMBER OF TEACHER EDUCATION GRADUATES READY FOR EMPLOYMENT EACH YEAR SINCE 1955-56

Session	Elementary			Secondary		
	Total teachers	Teacher education graduates of previous year		Total teachers	Teacher education graduates of previous year	
		Number	Percent of total		Number	Percent of total
1	2	3	4	5	6	7
1955-56	733,000	37,712	5.1	408,000	49,697	12.2
1956-57	751,000	40,801	5.4	447,000	56,785	12.7
1957-58	786,000	44,029	5.6	473,000	65,062	13.8
1958-59	815,000	45,318	5.3	491,000	69,093	14.1
1959-60	832,000	47,836	5.7	524,000	71,585	13.7
1960-61	858,000	52,630	6.1	550,000	77,573	14.1
1961-62	869,000	51,866	6.0	592,000	77,322	13.1
1962-63	886,000	57,854	6.5	621,000	84,489	13.6
1963-64	908,000	61,979	6.8	669,000	96,378	14.4
1964-65	940,000	72,581	7.7	708,000	101,552	14.3
1965-66	965,000	77,773	8.1	746,000	112,436	15.1
1966-67	1,006,000	77,703[a]	7.7	783,000	122,208[a]	15.6
1967-68	1,040,000[b]	76,607[a/c]	7.4	815,000[b]	121,554[a/c]	14.9
1968-69	1,076,000[b]	91,336[a]	8.5	860,000[b]	143,611[a]	16.7
1969-70	1,107,000[b]	103,654[a]	9.4	907,000[b]	162,607[a]	17.9
1970-71	1,132,000[b]	109,265[a]	9.7	929,000[b]	181,494[a]	19.5
1971-72	1,124,000[d]	114,879[a]	10.2	956,000[d]	197,345[a]	20.6

Source of staff size: U. S. Department of Health, Education, and Welfare, Office of Education. *Projections of Educational Statistics to 1977-78.* Washington, D.C.: Government Printing Office, 1969. Table 23. (Fall staff size includes number of part-time teachers.)

[a]Persons prepared to teach specific subjects, librarians, and guidance counselors are classified as secondary, consistent with practice in earlier years. Persons prepared to enter employment as school psychologists, school social workers, school nurses, and other ungraded assignments are not included.

[b]U. S. Department of Health, Education, and Welfare, Office of Education. *Statistics of Public Elementary and Secondary Day Schools, Fall 1970.* Washington, D.C.: Government Printing Office, 1971. Table 1.

[c]Estimate may be from 2 to 6 percent lower than actual numbers owing to incomplete reports in two states.

[d]Projection.

FIGURE IV

SUPPLY AND DEMAND FOR BEGINNING TEACHERS, BY TYPE OF ASSIGNMENT, ADJUSTED TREND CRITERION ESTIMATE, 1971

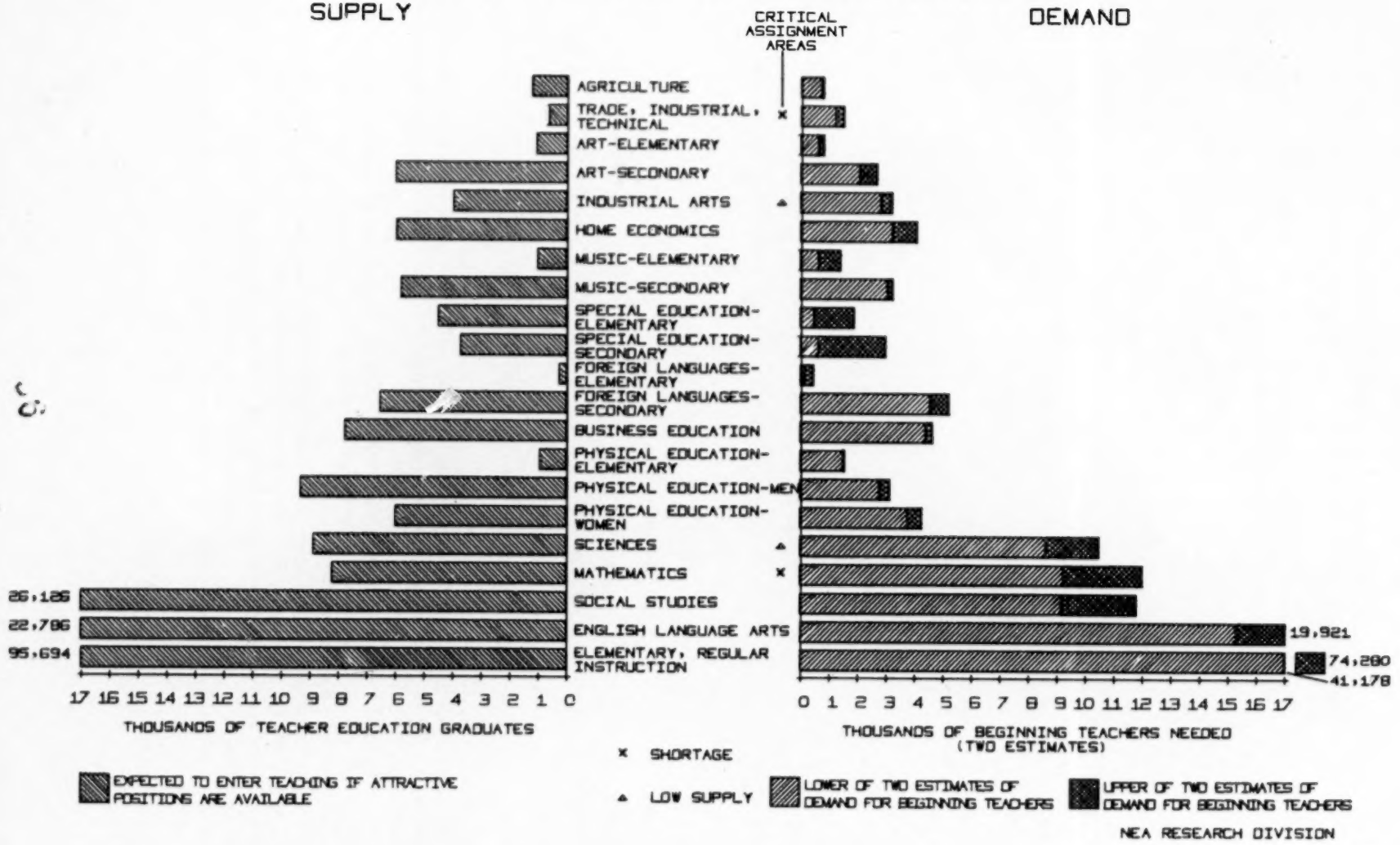


TABLE 16.–COMPARISON OF THE ESTIMATED SUPPLY OF BEGINNING TEACHERS WITH THE ADJUSTED TREND CRITERION ESTIMATE OF DEMAND FOR BEGINNING TEACHERS AND FOR NEW TEACHERS IN 1971, BY ASSIGNMENT

Assignment	Estimated supply of beginning teachers	Estimated demand for beginning teachers		Difference between supply and demand for beginning teachers		Number of former teachers expected to re-enter classrooms	
		Distribution last year	Based upon percent of staff last year who were new teachers	Distribution last year	Based upon percent of staff last year who were new teachers	Distribution last year	Based upon percent of staff last year who were new teachers
1	2	3	4	5	6	7	8
ELEMENTARY (total)	(103,402)	(46,900)	(78,031)	(56,502)	(25,371)	(35,900)	(27,986)
Regular instruction	95,694	41,178	74,280	54,516	21,414	31,520	26,644
Selected subjects:							
Art	1,062	797	617	265	445	611	206
Foreign language	239	141	454	98	-215	107	30
Music	1,010	1,407	648	-397	362	1,077	443
Physical and health education	934	1,501	1,558	-567	-624	1,149	481
Special education	4,463	1,876	474	2,587	3,989	1,436	182
SECONDARY (total)	(125,663)	(78,400)	(86,506)	(47,263)	(39,157)	(27,600)	(25,022)
Agriculture	1,219	784	716	435	503	276	144
Art	5,749	2,666	2,071	3,083	3,678	938	691
Business education	7,747	4,390	4,624	3,357	3,123	1,546	1,413
Distributive education	601	392	...	209	601	138	...
English language arts	22,786	15,288	19,921	7,498	2,865	5,382	5,917
Foreign language	6,532	4,547	5,189	1,985	1,343	1,601	1,241
Home economics	5,962	3,214	4,072	2,748	1,890	1,132	1,322
Industrial arts	3,939	2,822	3,200	1,117	739	994	1,021
Junior high school	468	[a]	...	468	468	...	...
Mathematics	8,206	9,251	11,997	-1,045	-3,791	3,257	3,227
Music	5,783	3,214	3,057	2,569	2,726	1,132	1,219
Physical and health education–men	9,303	3,114	2,783	6,189	6,520	1,096	670
Physical and health education–women	5,978	3,785	4,253	2,193	1,725	1,333	1,010
Natural and physical sciences	8,849	8,624	10,465	225	-1,616	3,036	3,143
Social studies	26,126	9,173	11,780	16,953	14,346	3,229	3,113
Trade, industrial, vocational, technical	630	1,490	1,234	-860	-604	524	454
Special education	3,707	2,980	632	727	3,075	1,048	315
Other subjects	2,078	2,666	512	-588	1,566	938	122

[a]Information from 11 states was distributed equally among English language arts, mathematics, natural and physical sciences, and social sciences.

subject areas having the highest proportions of graduates entering the profession immediately subsequent to their graduation. The reduction in recent years of the entry rate of graduates prepared to teach suggests that these pools are enlarging at an accelerated rate.

The additional supply of beginning teachers from the 1971 graduating class if 80.0 percent of the graduates enter teaching (column 5) shows an estimate of the potential supply which may be tapped, if attractive positions are open. The rate projected, 80.0 percent, is above the average reported for all teacher education graduates in recent years; but is lower than that observed among graduates prepared to enter elementary-school assignments during periods of shortage. It is assumed that this rate may be attained among graduates prepared for any assignment if employment opportunities are available and attractive.

The information in column 6 shows the additional demand for beginning teachers which could result from a

change in the estimated re-entry rate of former teachers. The reduction of 25 percent in the estimated re-entry rate would deepen the shortage of beginning mathematics teachers by about 814 persons. This and the relatively small numbers involved in the other assignments provide a basis for interpreting the significance of the estimated numerical comparison of the supply and demand for beginning teachers. The estimate in column 6 is related to the numerical estimate in column 2 in that both are based on the assumption that the rate of re-entry of former teachers is the same for each teaching assignment.

The summary in column 7 of Table 17 shows that based on the *Adjusted Trend Criterion Estimate* of demand the shortage of new teachers is continuing in mathematics and in trade-industrial-vocational-technical subjects. Limited supply compared with demand is estimated in the total natural and physical sciences and in industrial arts. Comparisons based on limited information suggest that the supply of beginning teachers is not as large as needed in subject-area assignments in elementary schools. Local shortages may be observed in other assignments despite the estimate of adequate supply for beginning teachers in these fields.

The estimates of conditions shown in Table 17 are based on a continuation of gradual movement in the improvement in educational staffing toward the standards described in the *Quality Criterion Estimate*. Acceleration of movement toward improved quality will increase the demand for beginning teachers.

FIGURE V

ESTIMATES OF SUPPLY OF TEACHER EDUCATION GRADUATES AND DEMAND FOR BEGINNING TEACHERS, 1971-72

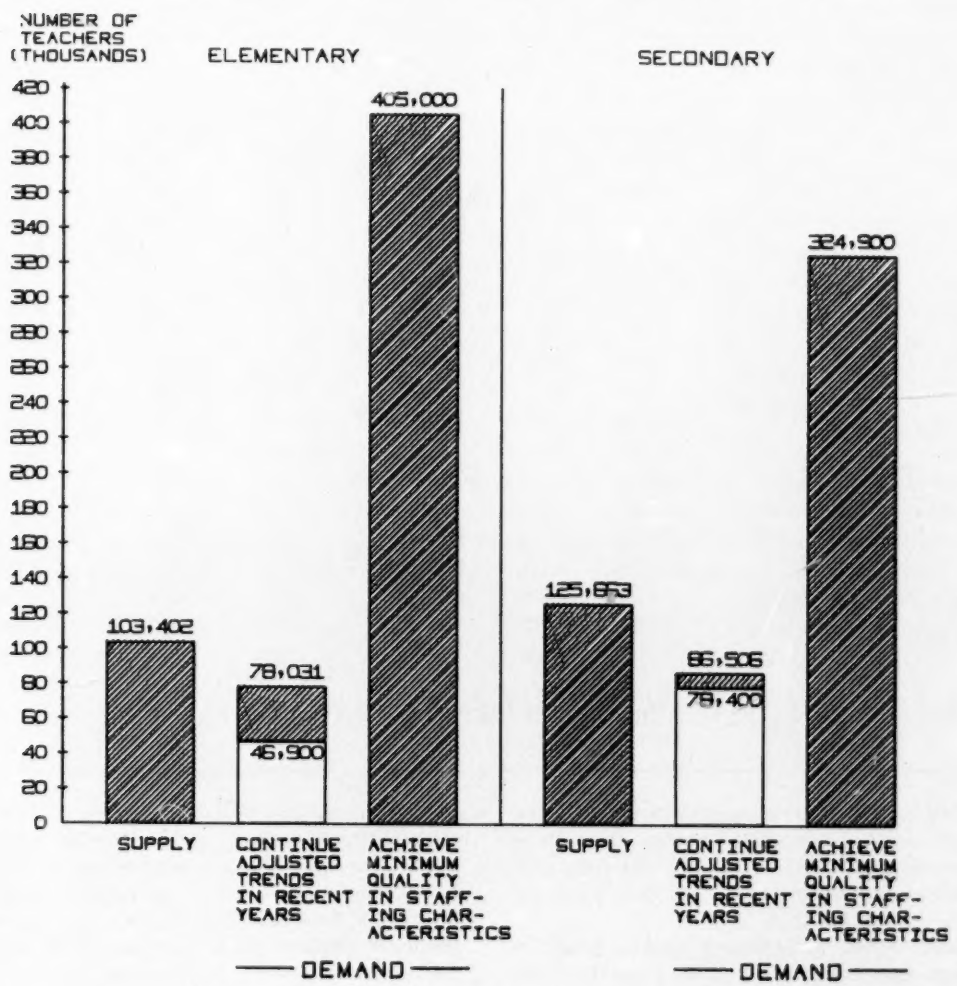


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TABLE 17.–SUMMARY OF ESTIMATED SUPPLY COMPARED WITH THE ADJUSTED TREND CRITERION ESTIMATE OF DEMAND FOR BEGINNING TEACHERS IN 1971, ELEMENTARY-SCHOOL AND SECONDARY-SCHOOL SUBJECT AREAS, BY GENERAL CONDITION

Assignment	Numerical difference in the estimated supply of beginning teachers and estimated demand based on		Percent of teacher education graduates entering the profession	Estimated additional supply if 80.0 percent of graduates entered	Additional demand if estimated re-entry rate is reduced by 25%	General condition
	Distribution last year	Percent of staff last year who were new				
1	2	3	4	5	6	7
Mathematics	-1,045	-3,791	65.3	1,281	-814	Shortage
Trade, industrial, vocational, technical	-860	-604	49.2	98	-131	Shortage
Natural and physical sciences	225	-1,616	54.1	1,381	-759	Low supply
Industrial arts	1,117	739	64.1	615	-249	Low supply
Special education						
Elementary	2,587	3,989	64.6	...	-359	
Secondary	727	3,075	64.6	579	-262	Near balance
Distributive education	209	...	58.4	93	-35	Near balance
Agriculture	435	503	50.5	190	-69	Adequate supply
Art						
Elementary	265	445	58.4	...	-153	Adequate supply
Secondary	3,083	3,678	54.4	897	-235	Adequate supply
Business education	3,357	3,123	49.7	1,209	-387	Adequate supply
Elementary, regular instruction	56,502	25,371	69.1	...	-7,880	Adequate supply
English language arts	7,498	2,865	54.8	3,556	-1,346	Adequate supply
Foreign languages						
Elementary	98	-215	59.8	...	-27	Adequate supply
Secondary	1,985	1,343	53.6	1,020	-400	Adequate supply
Home economics	2,748	1,890	53.4	930	-283	Adequate supply
Music						
Elementary	-397	362	63.1	...	-269	Adequate supply
Secondary	2,569	2,726	61.6	903	-283	Adequate supply
Physical and health education						
Elementary	-567	-624	64.0	...	-282	Adequate supply
Secondary–Men	10,330	10,661	55.6	1,452	-274	Adequate supply
Women	4,853	4,385	63.2	933	-333	Adequate supply
Social studies	16,953	14,346	43.7	4,078	-807	Adequate supply

TABLE 18.–SUMMARY OF THE COMPARISONS OF ESTIMATED SUPPLY WITH THE ESTIMATES OF DEMAND FOR BEGINNING TEACHERS, 1971-72

Level and criterion for estimate	Supply of beginning teachers	Demand for beginning teachers	Difference	Supply as percent of demand
1	2	3	4	5
ELEMENTARY SCHOOL				
Adjusted Trend Criterion				
Demand based on distribution of new teachers last year	103,402	46,900	+56,502	220.5%
Demand based on percent of staff who were new teachers last year	103,402	78,031	+25,371	132.5
Quality criterion	103,402	405,000	-301,598	25.5
SECONDARY SCHOOL				
Adjusted Trend Criterion				
Demand based on distribution of new teachers last year	125,663	78,400	+47,263	160.3
Demand based on percent of staff who were new teachers last year	125,663	86,506	+39,157	145.3
Quality criterion	125,663	324,900	-199,237	38.7
TOTAL				
Adjusted Trend Criterion				
Demand based on distribution of new teachers last year	229,065	125,300	+103,765	182.8
Demand based on percent of staff who were new teachers last year	229,065	164,537	+64,528	139.2
Quality criterion	229,065	729,900	-500,835	31.4

Summary of Comparisons Between Estimates of Teacher Supply and Demand

Beginning Teachers: Table 18 summarizes the comparisons between the estimated supply of beginning teachers and the three estimates of demand for beginning teachers. The estimated total supply of beginning teachers is greater than the two estimates of the demand projected by the *Adjusted Trend Criterion Estimate* but is inadequate to meet the requirements of the *Quality Criterion Estimate.*

Re-entering Teachers: In fall 1971 it is estimated that 80,400 qualified teachers who have interrupted their active employment for at least one year are interested in re-entering teaching positions. This may be a minimum estimate in view of the limited evidence that many normally mobile teachers are being forced to enter the unemployment pool because the number of positions open to them has been reduced in 1971.

The number of positions expected to be filled in 1971 by qualified re-entering teachers is estimated to be between 53,000 and 63,500. The lower estimate reflects the possible effect of decisions by some local school systems to select larger than usual proportions of beginning teachers to fill their position vacancies.

Comparison of these estimates shows that the supply of potentially re-entering teachers exceeds the estimated demand for them by between 16,900 and 27,400 persons in Fall 1971.

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE

TYPE OF PREPARATION COMPLETED BY STUDENT	ALABAMA		ALASKA		ARIZONA	
	1971	1970	1971	1970	1971	1970
ELEMENTARY-SCHOOL TOTAL	1,304	1,451	58	58	1,559	1,629
REGULAR INSTRUCTION	1,293	1,448	58	58	1,554	1,625
SELECTED SUBJECTS(TOTAL)	11	3	...	...	5	4
ART	...	3	...	...	...	...
FOREIGN LANGUAGES	8	...	...	...	...	...
MUSIC	3	...	...	...	...	...
PHYSICAL & HEALTH EDUCATION	...	...	...	...	5	4
SECONDARY SCHOOL						
AGRICULTURE	99	145	...	...	28	32
ART	60	66	1	3	95	109
BUSINESS EDUCATION	253	247	4	3	105	122
DISTRIBUTIVE EDUCATION	4	7	...	...	9	15
ENGLISH LANGUAGE ARTS(TOTAL)	449	469	3	3	296	307
ENGLISH	415	444	2	3	252	261
JOURNALISM	...	1	...	...	8	5
SPEECH AND DRAMATIC ARTS	34	24	1	...	36	41
FOREIGN LANGUAGES(TOTAL)	31	47	1	[illegible]	81	99
FRENCH	16	33	1	[illegible]	9	13
GERMAN	...	3	...	1	13	6
LATIN	1	1	...	...	1	...
RUSSIAN	...	...	...	...	1	2
SPANISH	13	10	...	...	55	77
OTHER	1	...	...	...	2	1
HOME ECONOMICS	180	199	1	2	69	64
INDUSTRIAL ARTS	45	42	...	...	96	101
JUNIOR HIGH SCHOOL(GENERAL)	...	...	...	...	...	...
MATHEMATICS	211	212	2	1	47	70
MUSIC	162	107	2	1	64	55
PHYSICAL & HEALTH EDUCATION	532	485	2	1	192	205
NATURAL & PHYSICAL SCIENCES (TOTAL)	191	213	11	7	96	111
SUBJECT NOT SPECIFIED	7	21	6	4	5	17
GENERAL SCIENCE	30	25	2	...	8	11
BIOLOGY	140	145	3	3	65	64
CHEMISTRY	12	19	...	...	15	11
PHYSICS	2	3	...	...	3	8
SOCIAL STUDIES(TOTAL)	663	699	7	6	251	272
SUBJECT NOT SPECIFIED	186	197	1	5	82	58
HISTORY, GEOGRAPHY	384	395	6	1	139	180
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	62	52	...	...	...	1
OTHER SOCIAL STUDIES	31	55	...	...	30	33
TRADE, INDUSTRY, TECHNOLOGY	...	11	...	...	6	5
OTHER SECONDARY SUBJECTS	144	120	3	5	8	21
SECONDARY-SCHOOL TOTAL	3,024	3,069	37	34	1,443	1,588
UNGRADED						
SPECIAL EDUCATION	11	17	1	2	160	149
LIBRARIAN	37	29	...	...	...	6
GUIDANCE COUNSELOR	77	128	3	3	103	191
SCHOOL PSYCHOLOGIST	...	...	...	...	...	...
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	...	...	...	...	...	...
OTHER UNGRADED	96	106	...	...	...	...

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	ARKANSAS		CALIFORNIA		COLORADO	
	1971	1970	1971	1970	1971	1970
ELEMENTARY-SCHOOL TOTAL	1,206	1,157	6,123	6,383	1,645	1,445
REGULAR INSTRUCTION	1,199	1,156	5,742	5,923	1,582	1,410
SELECTED SUBJECTS(TOTAL)	7	1	381	460	63	35
ART	...	...	158	182	19	8
FOREIGN LANGUAGES	...	...	107	152	13	6
MUSIC	1	...	77	84	25	18
PHYSICAL & HEALTH EDUCATION	6	1	39	42	6	3
SECONDARY SCHOOL						
AGRICULTURE	51	49	131	141	...	20
ART	80	71	326	438	174	190
BUSINESS EDUCATION	269	253	216	248	146	147
DISTRIBUTIVE EDUCATION	2	2	8	16	28	38
ENGLISH LANGUAGE ARTS(TOTAL)	391	374	1,107	1,323	497	523
ENGLISH	303	298	965	1,157	392	417
JOURNALISM	7	6	24	33	2	2
SPEECH AND DRAMATIC ARTS	81	70	118	133	103	104
FOREIGN LANGUAGES(TOTAL)	50	46	451	574	142	158
FRENCH	27	20	144	186	45	56
GERMAN	2	1	74	96	20	21
LATIN	...	...	5	7	1	2
RUSSIAN	...	...	7	6	1	4
SPANISH	20	25	218	270	74	75
OTHER	1	...	3	9	1	...
HOME ECONOMICS	168	164	239	247	45	109
INDUSTRIAL ARTS	49	41	229	212	111	143
JUNIOR HIGH SCHOOL(GENERAL)	...	...	...	...	...	...
MATHEMATICS	135	154	328	298	146	177
MUSIC	142	136	192	183	151	162
PHYSICAL & HEALTH EDUCATION	469	441	677	689	389	424
NATURAL & PHYSICAL SCIENCES (TOTAL)	147	104	483	477	234	243
SUBJECT NOT SPECIFIED	...	...	57	37	62	48
GENERAL SCIENCE	28	19	10	22	15	20
BIOLOGY	102	74	320	338	117	138
CHEMISTRY	11	6	57	53	30	24
PHYSICS	6	5	39	27	10	13
SOCIAL STUDIES(TOTAL)	355	367	1,610	1,736	553	553
SUBJECT NOT SPECIFIED	263	277	235	157	275	297
HISTORY, GEOGRAPHY	68	51	847	1,005	209	203
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	8	23	299	292	43	34
OTHER SOCIAL STUDIES	16	16	229	282	26	19
TRADE, INDUSTRY, TECHNOLOGY	3	3	...	...	3	34
OTHER SECONDARY SUBJECTS	6	7	551	498	23	32
SECONDARY-SCHOOL TOTAL	2,317	2,212	6,548	7,080	2,642	2,953
UNGRADED						
SPECIAL EDUCATION	194	168	306	439	322	321
LIBRARIAN	20	19	135	119	25	25
GUIDANCE COUNSELOR	116	114	260	269	191	182
SCHOOL PSYCHOLOGIST	...	...	108	220	...	...
SCHOOL SOCIAL WORKER	...	...	32	35	...	...
SCHOOL NURSE	...	...	43	66	...	...
OTHER UNGRADED	...	...	129	137	52	223

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	CONNECTICUT		DELAWARE		DISTRICT OF COLUMBIA	
	1971	1970	1971	1970	1971	1970
ELEMENTARY-SCHOOL TOTAL	2,019	2,261	203	165	512	468
REGULAR INSTRUCTION	2,019	2,261	203	165	508	462
SELECTED SUBJECTS(TOTAL)	...	...	...	...	4	6
ART	...	...	...	...	1	1
FOREIGN LANGUAGES	...	...	...	...	1	...
MUSIC	...	...	...	...	...	2
PHYSICAL & HEALTH EDUCATION	...	...	...	...	2	3
SECONDARY SCHOOL						
AGRICULTURE	2	2	7	4	...	...
ART	140	151	19	18	23	23
BUSINESS EDUCATION	40	63	16	20	43	47
DISTRIBUTIVE EDUCATION	23	19	4	...	...	...
ENGLISH LANGUAGE ARTS(TOTAL)	422	420	57	43	101	112
ENGLISH	420	419	57	43	86	89
JOURNALISM	...	...	...	...	...	...
SPEECH AND DRAMATIC ARTS	2	1	...	...	15	23
FOREIGN LANGUAGES(TOTAL)	174	177	22	26	48	36
FRENCH	76	89	13	11	30	17
GERMAN	17	12	2	4	1	2
LATIN	8	7	...	...	...	1
RUSSIAN	1	1	...	...	...	...
SPANISH	65	63	7	11	17	16
OTHER	7	5	...	...	...	...
HOME ECONOMICS	13	19	47	32	3	5
INDUSTRIAL ARTS	62	55	...	...	...	...
JUNIOR HIGH SCHOOL(GENERAL)	...	...	...	...	...	...
MATHEMATICS	155	155	26	20	35	23
MUSIC	28	87	10	10	30	38
PHYSICAL & HEALTH EDUCATION	249	280	62	48	31	61
NATURAL & PHYSICAL SCIENCES (TOTAL)	152	152	20	11	16	12
SUBJECT NOT SPECIFIED	17	12	...	11	1	...
GENERAL SCIENCE	11	7	2	...	6	5
BIOLOGY	91	112	12	...	7	4
CHEMISTRY	23	17	6	...	2	3
PHYSICS	10	4	...	...	...	...
SOCIAL STUDIES(TOTAL)	447	422	44	53	135	126
SUBJECT NOT SPECIFIED	155	170	4	44	37	27
HISTORY, GEOGRAPHY	260	215	31	9	78	75
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	10	3	3	...	15	18
OTHER SOCIAL STUDIES	22	34	6	...	5	6
TRADE, INDUSTRY, TECHNOLOGY	5	...	...	...	...	...
OTHER SECONDARY SUBJECTS	55	45	...	...	...	...
SECONDARY-SCHOOL TOTAL	1,967	2,047	334	285	465	483
UNGRADED						
SPECIAL EDUCATION	238	230	...	17	101	106
LIBRARIAN	68	65	...	...	...	...
GUIDANCE COUNSELOR	65	90	...	21	63	40
SCHOOL PSYCHOLOGIST	7	10	...	...	...	...
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	...	...	...	...	...	...
OTHER UNGRADED	94	86	...	12	...	...

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	FLORIDA		GEORGIA		HAWAII	
	1971	1970	1971	1970	1971	1970
ELEMENTARY-SCHOOL TOTAL	3,264	3,028	1,961	1,835	708	594
REGULAR INSTRUCTION	3,164	2,907	1,961	1,835	708	594
SELECTED SUBJECTS(TOTAL)	100	121	...	...	...	...
ART	37	44	...	...	...	...
FOREIGN LANGUAGES	...	...	...	...	...	...
MUSIC	31	34	...	...	...	...
PHYSICAL & HEALTH EDUCATION	32	43	...	...	...	...
SECONDARY SCHOOL						
AGRICULTURE	22	19	20	17	...	...
ART	179	148	86	62	34	16
BUSINESS EDUCATION	244	224	195	181	39	16
DISTRIBUTIVE EDUCATION	27	30	9	9	...	...
ENGLISH LANGUAGE ARTS(TOTAL)	777	741	428	437	140	111
ENGLISH	688	660	408	416	93	77
JOURNALISM	8	20	1	4	...	...
SPEECH AND DRAMATIC ARTS	81	61	19	17	47	34
FOREIGN LANGUAGES(TOTAL)	165	153	134	127	33	25
FRENCH	61	66	78	65	16	9
GERMAN	5	8	4	9	2	1
LATIN	3	3	3	5	...	...
RUSSIAN	1	...	...	1	...	1
SPANISH	94	75	49	45	4	6
OTHER	1	1	...	2	11	8
HOME ECONOMICS	90	86	133	133	15	5
INDUSTRIAL ARTS	72	56	53	48	18	6
JUNIOR HIGH SCHOOL(GENERAL)	4	4	28	31	...	...
MATHEMATICS	283	258	199	195	44	22
MUSIC	234	191	96	82	13	17
PHYSICAL & HEALTH EDUCATION	671	555	260	219	67	54
NATURAL & PHYSICAL SCIENCES (TOTAL)	243	210	216	194	52	18
SUBJECT NOT SPECIFIED	1	2	24	21	1	...
GENERAL SCIENCE	61	62	36	39	24	11
BIOLOGY	137	116	117	104	23	6
CHEMISTRY	34	25	31	25	3	1
PHYSICS	10	5	8	5	1	...
SOCIAL STUDIES(TOTAL)	1,101	1,068	752	681	160	98
SUBJECT NOT SPECIFIED	653	717	261	273	138	82
HISTORY, GEOGRAPHY	146	129	310	268	22	14
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	230	169	118	78	...	1
OTHER SOCIAL STUDIES	72	53	63	62	...	1
TRADE, INDUSTRY, TECHNOLOGY	69	41	10	10	1	...
OTHER SECONDARY SUBJECTS	...	1	70	7	67	49
SECONDARY-SCHOOL TOTAL	4,181	3,785	2,689	2,433	683	437
UNGRADED						
SPECIAL EDUCATION	337	296	237	178	19	15
LIBRARIAN	76	89	22	11	...	...
GUIDANCE COUNSELOR	99	64	146	153	...	...
SCHOOL PSYCHOLOGIST	...	...	...	...	89	53
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	...	...	...	...	...	...
OTHER UNGRADED	70	41	30	30	...	45

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	IDAHO		ILLINOIS		INDIANA	
	1971	1970	1971	1970	1971	1970
ELEMENTARY-SCHOOL TOTAL	552	517	6,503	6,108	3,464	2,932
REGULAR INSTRUCTION	552	517	6,311	5,919	3,450	2,918
SELECTED SUBJECTS(TOTAL)	...	...	192	189	14	14
ART	...	...	15	25	...	1
FOREIGN LANGUAGES	...	...	15	7	...	...
MUSIC	...	...	90	79	9	8
PHYSICAL & HEALTH EDUCATION	...	...	72	78	5	5
SECONDARY SCHOOL						
AGRICULTURE	14	16	120	121	50	61
ART	35	21	509	430	240	187
BUSINESS EDUCATION	59	40	674	615	202	189
DISTRIBUTIVE EDUCATION	3	...	2	1	2	2
ENGLISH LANGUAGE ARTS(TOTAL)	155	120	1,967	1,615	1,007	904
ENGLISH	134	107	1,543	1,271	771	696
JOURNALISM	2	...	12	8	37	38
SPEECH AND DRAMATIC ARTS	19	13	412	336	199	170
FOREIGN LANGUAGES(TOTAL)	23	16	616	575	256	246
FRENCH	6	3	215	207	100	95
GERMAN	2	2	100	97	37	40
LATIN	...	...	18	26	8	10
RUSSIAN	...	...	15	17	...	...
SPANISH	15	11	260	213	111	101
OTHER	...	...	8	15	...	...
HOME ECONOMICS	64	61	342	274	245	228
INDUSTRIAL ARTS	8	6	421	385	73	60
JUNIOR HIGH SCHOOL(GENERAL)	...	2	121	111	...	...
MATHEMATICS	45	35	741	669	295	301
MUSIC	39	29	536	473	190	202
PHYSICAL & HEALTH EDUCATION	191	151	1,280	1,095	[illegible]	472
NATURAL & PHYSICAL SCIENCES (TOTAL)	62	72	607	514	427	423
SUBJECT NOT SPECIFIED	2	12	60	63	48	39
GENERAL SCIENCE	14	14	25	21	21	42
BIOLOGY	38	41	386	321	280	263
CHEMISTRY	6	4	86	69	61	61
PHYSICS	2	1	50	40	17	18
SOCIAL STUDIES(TOTAL)	214	180	2,280	1,890	1,098	989
SUBJECT NOT SPECIFIED	96	85	468	419	618	523
HISTORY, GEOGRAPHY	92	73	1,257	1,053	305	316
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	19	16	270	190	98	90
OTHER SOCIAL STUDIES	7	6	285	228	77	60
TRADE, INDUSTRY, TECHNOLOGY	...	3	1	1	22	26
OTHER SECONDARY SUBJECTS	...	10	6	17	...	1
SECONDARY-SCHOOL TOTAL	912	762	10,223	8,786	4,652	4,291
UNGRADED						
SPECIAL EDUCATION	39	24	933	710	124	99
LIBRARIAN	3	...	49	32	39	36
GUIDANCE COUNSELOR	36	17	398	376	143	136
SCHOOL PSYCHOLOGIST	5	2	25	22	6	6
SCHOOL SOCIAL WORKER	...	...	...	1	1	2
SCHOOL NURSE	...	...	1	3	1	6
OTHER UNGRADED	97	59	255	320	75	77

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	IOWA		KANSAS		KENTUCKY	
	1971	1970	1971	1970	1971	1970
ELEMENTARY-SCHOOL TOTAL	2,196	1,985	1,726	1,800	1,955	1,815
REGULAR INSTRUCTION	2,121	1,943	1,696	1,755	1,954	1,815
SELECTED SUBJECTS(TOTAL)	75	42	30	45	1	...
ART	19	10	2	3	1	...
FOREIGN LANGUAGES	...	1	...	...	...	...
MUSIC	24	26	19	28	...	...
PHYSICAL & HEALTH EDUCATION	32	5	9	14	...	...
SECONDARY SCHOOL						
AGRICULTURE	105	74	32	31	38	38
ART	225	199	151	142	177	152
BUSINESS EDUCATION	165	141	144	169	351	357
DISTRIBUTIVE EDUCATION	109	15	2	4	...	...
ENGLISH LANGUAGE ARTS(TOTAL)	607	612	544	546	673	657
ENGLISH	475	490	399	468	569	576
JOURNALISM	16	15	6	3	14	8
SPEECH AND DRAMATIC ARTS	116	107	139	75	90	73
FOREIGN LANGUAGES(TOTAL)	248	225	129	138	93	97
FRENCH	89	70	50	68	46	40
GERMAN	50	50	23	7	5	8
LATIN	3	5	3	2	5	6
RUSSIAN	4	6	2	1	2	1
SPANISH	101	94	47	59	35	42
OTHER	1	...	4	1	...	...
HOME ECONOMICS	223	179	198	184	202	186
INDUSTRIAL ARTS	99	82	148	151	190	187
JUNIOR HIGH SCHOOL(GENERAL)	44	46	...	...	35	18
MATHEMATICS	217	213	163	157	194	184
MUSIC	204	203	262	238	207	175
PHYSICAL & HEALTH EDUCATION	552	483	532	506	636	610
NATURAL & PHYSICAL SCIENCES (TOTAL)	261	250	176	170	229	223
SUBJECT NOT SPECIFIED	54	54	41	40	16	13
GENERAL SCIENCE	25	40	16	23	5	5
BIOLOGY	138	126	88	93	167	164
CHEMISTRY	31	15	19	8	39	36
PHYSICS	13	15	12	6	2	5
SOCIAL STUDIES(TOTAL)	691	639	496	440	1,059	1,016
SUBJECT NOT SPECIFIED	289	214	226	181	128	110
HISTORY, GEOGRAPHY	291	291	195	189	481	501
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	75	80	50	39	315	295
OTHER SOCIAL STUDIES	36	54	25	31	135	110
TRADE, INDUSTRY, TECHNOLOGY	3	...	20	33	28	34
OTHER SECONDARY SUBJECTS	10	...	25	38	50	54
SECONDARY-SCHOOL TOTAL	3,763	3,361	3,022	2,947	4,162	3,988
UNGRADED						
SPECIAL EDUCATION	151	104	110	99	131	97
LIBRARIAN	75	76	...	8	25	18
GUIDANCE COUNSELOR	102	49	22	36	...	...
SCHOOL PSYCHOLOGIST	4	11	10	10	...	...
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	...	...	...	...	...	...
OTHER UNGRADED	74	...	25	43	...	...

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	LOUISIANA		MAINE		MARYLAND	
	1971	1970	1971	1970	1971	1970
ELEMENTARY-SCHOOL TOTAL	1,916	1,915	523	504	1,691	1,443
REGULAR INSTRUCTION	1,916	1,915	509	501	1,563	1,382
SELECTED SUBJECTS(TOTAL)	...	...	14	3	128	61
ART	...	...	5	...	63	24
FOREIGN LANGUAGES	...	...	...	...	1	...
MUSIC	...	...	9	3	31	15
PHYSICAL & HEALTH EDUCATION	...	...	...	...	33	22
SECONDARY SCHOOL						
AGRICULTURE	27	41	...	...	7	3
ART	97	70	21	19	131	90
BUSINESS EDUCATION	300	256	65	68	39	33
DISTRIBUTIVE EDUCATION	5	8	1	...	2	...
ENGLISH LANGUAGE ARTS(TOTAL)	575	508	99	101	359	327
ENGLISH	432	395	99	101	318	306
JOURNALISM	...	1	...	...	...	...
SPEECH AND DRAMATIC ARTS	143	112	...	...	41	21
FOREIGN LANGUAGES(TOTAL)	107	100	33	34	129	146
FRENCH	53	60	25	25	66	77
GERMAN	1	2	3	2	13	11
LATIN	1	...	2	4	...	2
RUSSIAN	...	...	1	...	...	1
SPANISH	52	38	2	3	50	55
OTHER	...	...	...	...	...	...
HOME ECONOMICS	189	170	75	74	101	87
INDUSTRIAL ARTS	56	55	60	60	52	51
JUNIOR HIGH SCHOOL(GENERAL)	11	8	70	70	...	...
MATHEMATICS	221	201	45	42	100	119
MUSIC	186	147	34	31	60	57
PHYSICAL & HEALTH EDUCATION	513	484	21	21	190	181
NATURAL & PHYSICAL SCIENCES (TOTAL)	176	129	44	44	135	114
SUBJECT NOT SPECIFIED	9	10	2	2	...	...
GENERAL SCIENCE	29	18	14	16	39	33
BIOLOGY	103	85	22	20	65	71
CHEMISTRY	30	16	2	2	20	6
PHYSICS	5	...	4	4	11	4
SOCIAL STUDIES(TOTAL)	559	502	142	156	412	356
SUBJECT NOT SPECIFIED	493	456	3	17	132	93
HISTORY, GEOGRAPHY	62	33	98	105	242	219
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	1	...	36	34	38	29
OTHER SOCIAL STUDIES	3	13	5	...	...	15
TRADE, INDUSTRY, TECHNOLOGY	10	13	11	11	...	...
OTHER SECONDARY SUBJECTS	...	...	10	...	...	1
SECONDARY-SCHOOL TOTAL	3,032	2,692	731	731	1,717	1,565
UNGRADED						
SPECIAL EDUCATION	116	123	29	29	177	136
LIBRARIAN	15	24	...	...	5	2
GUIDANCE COUNSELOR	168	185	...	...	16	23
SCHOOL PSYCHOLOGIST	...	...	...	...	2	2
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	...	...	...	...	...	...
OTHER UNGRADED	68	66	...	...	3	18

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	MASSACHUSETTS		MICHIGAN		MINNESOTA	
	1971	1970	1971	1970	1971	1970
ELEMENTARY-SCHOOL TOTAL	4,585	4,362	6,715	6,217	3,072	2,893
REGULAR INSTRUCTION	4,471	4,218	6,480	6,021	3,059	2,876
SELECTED SUBJECTS(TOTAL)	114	144	235	196	13	17
ART	84	99	80	79	7	...
FOREIGN LANGUAGES	6	14	28	30	...	...
MUSIC	24	31	69	56	6	16
PHYSICAL & HEALTH EDUCATION	...	...	58	31	...	1
SECONDARY SCHOOL						
AGRICULTURE	...	...	39	35	39	39
ART	143	104	482	413	216	234
BUSINESS EDUCATION	185	147	708	673	213	206
DISTRIBUTIVE EDUCATION	15	...	63	68	30	7
ENGLISH LANGUAGE ARTS(TOTAL)	1,131	928	2,180	1,926	877	805
ENGLISH	1,039	905	1,727	1,553	678	656
JOURNALISM	...	...	41	19	6	1
SPEECH AND DRAMATIC ARTS	92	23	412	354	193	148
FOREIGN LANGUAGES(TOTAL)	321	317	499	432	259	196
FRENCH	200	213	230	186	104	80
GERMAN	20	18	89	82	67	53
LATIN	11	15	23	25	4	8
RUSSIAN	14	2	14	10	3	2
SPANISH	61	65	143	128	81	53
OTHER	15	4	...	1	...	...
HOME ECONOMICS	99	101	420	389	226	168
INDUSTRIAL ARTS	...	...	272	242	216	206
JUNIOR HIGH SCHOOL(GENERAL)	...	1	3	...	...	31
MATHEMATICS	341	304	682	588	341	277
MUSIC	188	137	347	313	302	264
PHYSICAL & HEALTH EDUCATION	585	489	877	812	627	521
NATURAL & PHYSICAL SCIENCES (TOTAL)	446	423	734	648	338	259
SUBJECT NOT SPECIFIED	86	147	11	13	43	...
GENERAL SCIENCE	128	78	93	70	22	30
BIOLOGY	162	152	475	428	202	170
CHEMISTRY	41	35	90	85	51	45
PHYSICS	29	11	65	52	20	14
SOCIAL STUDIES(TOTAL)	1,093	975	2,651	2,326	825	787
SUBJECT NOT SPECIFIED	283	276	820	714	364	264
HISTORY, GEOGRAPHY	661	563	1,116	985	323	385
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	69	42	468	412	38	50
OTHER SOCIAL STUDIES	80	94	247	215	100	88
TRADE, INDUSTRY, TECHNOLOGY	8	6	147	142	...	...
OTHER SECONDARY SUBJECTS	126	58	177	120	231	144
SECONDARY-SCHOOL TOTAL	4,681	3,990	10,281	9,127	4,740	4,144
UNGRADED						
SPECIAL EDUCATION	376	150	863	806	101	118
LIBRARIAN	...	...	85	117	19	18
GUIDANCE COUNSELOR	433	109	...	...	49	44
SCHOOL PSYCHOLOGIST	...	...	...	...	...	...
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	3	...	...	...	...	...
OTHER UNGRADED	642	13	...	...	...	...

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	MISSISSIPPI		MISSOURI		MONTANA	
	1971	1970	1971	1970	1971	1970
ELEMENTARY-SCHOOL TOTAL	1,383	1,339	2,814	2,908	621	493
REGULAR INSTRUCTION	1,373	1,304	2,772	2,792	619	490
SELECTED SUBJECTS(TOTAL)	10	35	42	116	2	3
ART	5	5	9	16	...	...
FOREIGN LANGUAGES	...	...	2	5	...	...
MUSIC	5	22	17	55	2	3
PHYSICAL & HEALTH EDUCATION	...	8	14	40	...	...
SECONDARY SCHOOL						
AGRICULTURE	63	51	33	35	18	23
ART	75	65	257	210	59	40
BUSINESS EDUCATION	324	305	337	266	113	88
DISTRIBUTIVE EDUCATION	4	2	9	9	18	5
ENGLISH LANGUAGE ARTS(TOTAL)	496	428	855	891	184	104
ENGLISH	387	330	727	777	174	104
JOURNALISM	7	2	...	1	2	...
SPEECH AND DRAMATIC ARTS	102	96	128	113	8	...
FOREIGN LANGUAGES(TOTAL)	63	52	231	214	54	9
FRENCH	29	29	112	96	21	5
GERMAN	4	...	15	17	9	1
LATIN	4	1	3	8	1	...
RUSSIAN	1	...	2	3	1	1
SPANISH	24	19	99	90	22	2
OTHER	1	3	...	...	...	...
HOME ECONOMICS	181	141	233	218	85	39
INDUSTRIAL ARTS	125	129	163	145	43	30
JUNIOR HIGH SCHOOL(GENERAL)	...	...	5	...	2	1
MATHEMATICS	178	163	306	282	53	37
MUSIC	179	134	265	256	29	16
PHYSICAL & HEALTH EDUCATION	520	453	671	627	179	110
NATURAL & PHYSICAL SCIENCES (TOTAL)	163	148	259	232	103	59
SUBJECT NOT SPECIFIED	...	5	10	10	29	21
GENERAL SCIENCE	21	22	21	21	15	7
BIOLOGY	117	104	172	165	49	29
CHEMISTRY	23	17	35	23	7	2
PHYSICS	2	...	21	13	3	...
SOCIAL STUDIES(TOTAL)	734	592	977	883	216	173
SUBJECT NOT SPECIFIED	471	387	490	498	56	44
HISTORY, GEOGRAPHY	175	148	311	265	122	86
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	63	36	90	53	34	43
OTHER SOCIAL STUDIES	25	21	86	67	4	...
TRADE, INDUSTRY, TECHNOLOGY	21	27	9	4	32	13
OTHER SECONDARY SUBJECTS	4	4	15	10	5	6
SECONDARY-SCHOOL TOTAL	3,130	2,694	4,625	4,282	1,193	753
UNGRADED						
SPECIAL EDUCATION	191	160	237	266	62	55
LIBRARIAN	47	52	17	15	11	11
GUIDANCE COUNSELOR	...	1	178	310	32	37
SCHOOL PSYCHOLOGIST	42	39	...	...	...	...
SCHOOL SOCIAL WORKER	...	...	5	...	...	...
SCHOOL NURSE	...	...	...	1	...	...
OTHER UNGRADED	...	...	96	118	...	...

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	NEBRASKA		NEVADA		NEW HAMPSHIRE	
	1971	1970	1971	1970	1971	1970
ELEMENTARY-SCHOOL TOTAL	1,899	1,796	178	207	450	449
REGULAR INSTRUCTION	1,855	1,737	178	207	447	439
SELECTED SUBJECTS(TOTAL)	44	59	...	...	3	10
ART	19	31	...	...	1	5
FOREIGN LANGUAGES	2	2	...	...	...	1
MUSIC	12	15	...	...	2	4
PHYSICAL & HEALTH EDUCATION	11	11	...	...	...	...
SECONDARY SCHOOL						
AGRICULTURE	30	37	5	2	30	3
ART	117	89	15	11	34	20
BUSINESS EDUCATION	199	190	21	17	29	34
DISTRIBUTIVE EDUCATION	2	5	...	...	15	8
ENGLISH LANGUAGE ARTS(TOTAL)	446	446	78	53	109	93
ENGLISH	331	333	60	40	109	93
JOURNALISM	14	12	4	3	...	...
SPEECH AND DRAMATIC ARTS	101	101	14	10	...	...
FOREIGN LANGUAGES(TOTAL)	83	94	12	10	45	44
FRENCH	29	33	1	...	36	35
GERMAN	25	16	4	2	2	5
LATIN	2	1	...	...	...	2
RUSSIAN	...	...	...	...	...	...
SPANISH	27	41	7	8	7	2
OTHER	...	3	...	...	...	...
HOME ECONOMICS	194	118	9	10	44	35
INDUSTRIAL ARTS	140	128	1	2	30	27
JUNIOR HIGH SCHOOL(GENERAL)	3	46	...	...	...	...
MATHEMATICS	221	190	12	9	50	56
MUSIC	165	125	11	10	31	21
PHYSICAL & HEALTH EDUCATION	422	370	60	48	115	106
NATURAL & PHYSICAL SCIENCES (TOTAL)	178	162	43	26	51	47
SUBJECT NOT SPECIFIED	16	15	4	1	...	1
GENERAL SCIENCE	12	4	6	4	13	16
BIOLOGY	113	105	22	14	36	30
CHEMISTRY	20	27	6	5	2	...
PHYSICS	17	11	5	2	...	...
SOCIAL STUDIES(TOTAL)	489	408	80	54	195	147
SUBJECT NOT SPECIFIED	149	167	9	3	68	58
HISTORY, GEOGRAPHY	277	213	44	33	95	69
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	38	16	18	9	21	20
OTHER SOCIAL STUDIES	25	12	9	9	11	...
TRADE, INDUSTRY, TECHNOLOGY	...	...	...	...	...	...
OTHER SECONDARY SUBJECTS	27	29	...	...	...	...
SECONDARY-SCHOOL TOTAL	2,716	2,437	347	252	778	641
UNGRADED						
SPECIAL EDUCATION	39	31	41	24	1	1
LIBRARIAN	12	10	8	4	5	12
GUIDANCE COUNSELOR	33	29	24	25	13	29
SCHOOL PSYCHOLOGIST	...	...	2	...	...	...
SCHOOL SOCIAL WORKER	...	...	...	...	...	3
SCHOOL NURSE	...	...	...	...	...	...
OTHER UNGRADED	80	63	4	49	54	52

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	NEW JERSEY		NEW MEXICO		NEW YORK	
	1971	1970	1971	1970	1971	1970
ELEMENTARY-SCHOOL TOTAL	3,308	3,119	550	495	11,472	10,254
REGULAR INSTRUCTION	3,134	2,965	536	483	10,933	9,760
SELECTED SUBJECTS(TOTAL)	174	154	14	12	539	494
ART	63	63	...	...	214	180
FOREIGN LANGUAGES	...	...	...	...	13	16
MUSIC	26	30	14	12	161	154
PHYSICAL & HEALTH EDUCATION	85	61	...	...	151	144
SECONDARY SCHOOL						
AGRICULTURE	...	...	...	...	21	53
ART	271	204	60	44	897	825
BUSINESS EDUCATION	333	297	79	92	382	354
DISTRIBUTIVE EDUCATION	58	23	1	3	48	47
ENGLISH LANGUAGE ARTS(TOTAL)	805	759	164	170	2,642	2,344
ENGLISH	695	639	128	127	2,300	2,044
JOURNALISM	...	...	22	26	...	...
SPEECH AND DRAMATIC ARTS	110	120	14	17	342	300
FOREIGN LANGUAGES(TOTAL)	308	322	46	52	1,082	1,023
FRENCH	128	126	8	5	503	446
GERMAN	26	19	3	1	55	51
LATIN	16	17	...	...	28	25
RUSSIAN	4	1	...	...	15	20
SPANISH	131	146	35	45	394	397
OTHER	3	13	...	1	87	84
HOME ECONOMICS	225	129	59	64	400	381
INDUSTRIAL ARTS	249	228	61	48	539	426
JUNIOR HIGH SCHOOL(GENERAL)	83	60	2	...	203	194
MATHEMATICS	381	342	56	49	1,100	998
MUSIC	238	186	27	35	564	508
PHYSICAL & HEALTH EDUCATION	375	413	197	186	1,149	948
NATURAL & PHYSICAL SCIENCES (TOTAL)	382	328	66	46	933	913
SUBJECT NOT SPECIFIED	65	170	10	6	248	117
GENERAL SCIENCE	66	65	16	20	92	154
BIOLOGY	183	81	35	17	423	465
CHEMISTRY	39	3	4	2	123	139
PHYSICS	29	9	1	1	47	38
SOCIAL STUDIES(TOTAL)	802	665	181	228	1,939	1,789
SUBJECT NOT SPECIFIED	550	444	51	90	1,597	1,400
HISTORY, GEOGRAPHY	204	189	110	117	196	208
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	9	2	7	12	3	29
OTHER SOCIAL STUDIES	39	30	13	9	143	152
TRADE, INDUSTRY, TECHNOLOGY	63	68	1	2	69	130
OTHER SECONDARY SUBJECTS	...	...	20	27	288	286
SECONDARY-SCHOOL TOTAL	4,573	4,024	1,020	1,046	12,256	11,219
UNGRADED						
SPECIAL EDUCATION	486	394	72	42	769	753
LIBRARIAN	32	11	2	3	178	209
GUIDANCE COUNSELOR	54	67	62	33	475	513
SCHOOL PSYCHOLOGIST	...	...	65	62	157	156
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	159	88	...	...	100	94
OTHER UNGRADED	...	...	123	128	625	613

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	NORTH CAROLINA		NORTH DAKOTA		OHIO	
	1971	1970	1971	1970	1971	1970
ELEMENTARY-SCHOOL TOTAL	2,765	2,463	504	560	5,026	5,055
REGULAR INSTRUCTION	2,765	2,463	493	555	4,846	4,874
SELECTED SUBJECTS(TOTAL)	...	...	11	5	180	181
ART	...	...	...	...	26	65
FOREIGN LANGUAGES	...	...	...	...	8	7
MUSIC	...	...	3	1	49	49
PHYSICAL & HEALTH EDUCATION	...	...	8	4	97	60
SECONDARY SCHOOL						
AGRICULTURE	45	40	29	27	...	...
ART	151	119	42	36	516	396
BUSINESS EDUCATION	749	680	150	193	691	514
DISTRIBUTIVE EDUCATION	6	4	6	2	84	54
ENGLISH LANGUAGE ARTS(TOTAL)	818	744	179	209	1,876	1,946
ENGLISH	770	708	158	195	1,609	1,637
JOURNALISM	...	...	...	...	7	4
SPEECH AND DRAMATIC ARTS	48	36	21	14	260	305
FOREIGN LANGUAGES(TOTAL)	216	210	35	24	531	545
FRENCH	145	159	7	7	17.	204
GERMAN	7	5	21	13	74	58
LATIN	5	...	2	...	26	4[illegible]
RUSSIAN	...	...	...	...	8	13
SPANISH	59	45	5	4	250	229
OTHER	...	1	...	...	...	...
HOME ECONOMICS	252	216	93	113	381	424
INDUSTRIAL ARTS	144	123	38	23	192	134
JUNIOR HIGH SCHOOL(GENERAL)	...	...	...	1	...	...
MATHEMATICS	357	299	80	109	549	583
MUSIC	218	219	81	74	543	370
PHYSICAL & HEALTH EDUCATION	637	672	256	242	1,117	1,046
NATURAL & PHYSICAL SCIENCES (TOTAL)	296	257	90	87	776	744
SUBJECT NOT SPECIFIED	23	12	...	...	158	208
GENERAL SCIENCE	41	43	12	5	105	126
BIOLOGY	182	175	61	68	421	334
CHEMISTRY	34	19	16	14	60	46
PHYSICS	16	8	1	...	32	30
SOCIAL STUDIES(TOTAL)	931	790	242	237	3,133	1,984
SUBJECT NOT SPECIFIED	595	525	80	108	1,307	1,172
HISTORY, GEOGRAPHY	327	248	112	85	1,682	699
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	9	17	30	20	58	43
OTHER SOCIAL STUDIES	...	...	20	24	86	70
TRADE, INDUSTRY, TECHNOLOGY	65	36	...	...	68	56
OTHER SECONDARY SUBJECTS	564	519	...	...	63	51
SECONDARY-SCHOOL TOTAL	5,649	4,928	1,321	1,317	10,520	8,847
UNGRADED						
SPECIAL EDUCATION	239	183	104	74	98	191
LIBRARIAN	78	71	17	13	33	29
GUIDANCE COUNSELOR	249	215	175	150	305	363
SCHOOL PSYCHOLOGIST	10	3	...	...	87	86
SCHOOL SOCIAL WORKER	...	...	...	...	2	5
SCHOOL NURSE	1	1	...	...	...	...
OTHER UNGRADED	281	248	...	...	102	1,083

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	OKLAHOMA		OREGON		PENNSYLVANIA	
	1971	1970	1971	1970	1971	1970
ELEMENTARY-SCHOOL TOTAL	2,039	1,892	1,780	1,716	7,227	6,704
REGULAR INSTRUCTION	1,872	1,756	1,772	1,716	7,101	6,579
SELECTED SUBJECTS(TOTAL)	167	136	8	...	126	125
ART	43	37	...	...	29	36
FOREIGN LANGUAGES	2	...	6	...	18	19
MUSIC	67	55	2	...	43	38
PHYSICAL & HEALTH EDUCATION	55	44	...	...	36	32
SECONDARY SCHOOL						
AGRICULTURE	106	101	22	14	20	24
ART	101	83	126	125	499	452
BUSINESS EDUCATION	362	349	109	104	416	498
DISTRIBUTIVE EDUCATION	56	3	...	...	14	4
ENGLISH LANGUAGE ARTS(TOTAL)	572	521	442	431	1,943	1,801
ENGLISH	478	456	370	368	1,862	1,737
JOURNALISM	12	12	14	11	...	3
SPEECH AND DRAMATIC ARTS	82	53	58	52	81	61
FOREIGN LANGUAGES(TOTAL)	67	60	119	110	815	868
FRENCH	27	21	47	43	318	352
GERMAN	5	6	23	27	133	122
LATIN	...	...	2	2	28	30
RUSSIAN	...	...	...	2	14	19
SPANISH	35	33	47	36	321	340
OTHER	...	...	...	...	1	5
HOME ECONOMICS	267	243	96	113	505	475
INDUSTRIAL ARTS	195	163	25	23	283	264
JUNIOR HIGH SCHOOL(GENERAL)	...	...	16	61	...	...
MATHEMATICS	230	197	135	119	1,039	1,034
MUSIC	195	166	109	122	511	514
PHYSICAL & HEALTH EDUCATION	531	398	299	263	779	854
NATURAL & PHYSICAL SCIENCES (TOTAL)	255	219	145	165	1,056	824
SUBJECT NOT SPECIFIED	160	136	...	...	200	82
GENERAL SCIENCE	36	37	55	65	121	93
BIOLOGY	48	39	68	79	522	488
CHEMISTRY	8	5	14	18	152	101
PHYSICS	3	2	8	3	61	60
SOCIAL STUDIES(TOTAL)	581	515	401	405	2,350	2,159
SUBJECT NOT SPECIFIED	405	384	373	392	1,191	1,184
HISTORY, GEOGRAPHY	106	78	18	9	926	783
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	65	53	6	2	60	54
OTHER SOCIAL STUDIES	5	...	4	2	173	138
TRADE, INDUSTRY, TECHNOLOGY	86	83	7	7	56	60
OTHER SECONDARY SUBJECTS	21	17	...	...	7	11
SECONDARY-SCHOOL TOTAL	3,625	3,118	2,051	2,062	10,293	9,842
UNGRADED						
SPECIAL EDUCATION	244	217	157	173	545	560
LIBRARIAN	58	43	80	66	192	274
GUIDANCE COUNSELOR	101	99	78	63	279	272
SCHOOL PSYCHOLOGIST	6	6	5	4	18	9
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	19	18	...	...	293	341
OTHER UNGRADED	62	59	...	...	164	180

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	RHODE ISLAND		SOUTH CAROLINA		SOUTH DAKOTA	
	1971	1970	1971	1970	1971	1970
ELEMENTARY-SCHOOL TOTAL	898	617	1,042	1,073	950	880
REGULAR INSTRUCTION	844	577	1,033	1,068	946	880
SELECTED SUBJECTS(TOTAL)	54	40	9	5	4	...
ART	51	40	...	3	...	...
FOREIGN LANGUAGES	...	...	...	...	...	...
MUSIC	...	...	9	2	2	...
PHYSICAL & HEALTH EDUCATION	3	...	...	...	2	...
SECONDARY SCHOOL						
AGRICULTURE	9	6	47	35	23	18
ART	4	3	38	41	46	58
BUSINESS EDUCATION	53	57	80	89	161	136
DISTRIBUTIVE EDUCATION	...	...	3	4	...	...
ENGLISH LANGUAGE ARTS(TOTAL)	145	151	313	328	282	308
ENGLISH	141	146	291	296	226	234
JOURNALISM	...	...	...	...	2	3
SPEECH AND DRAMATIC ARTS	4	5	22	32	54	71
FOREIGN LANGUAGES(TOTAL)	66	96	68	99	43	66
FRENCH	50	81	44	72	8	15
GERMAN	1	2	4	5	18	21
LATIN	2	4	2	1	...	...
RUSSIAN	...	...	...	...	...	...
SPANISH	9	5	18	21	9	8
OTHER	4	4	...	...	8	22
HOME ECONOMICS	38	29	53	70	61	60
INDUSTRIAL ARTS	21	25	47	50	71	72
JUNIOR HIGH SCHOOL(GENERAL)	2	12	...	...	...	...
MATHEMATICS	55	65	133	147	121	123
MUSIC	27	14	80	77	89	96
PHYSICAL & HEALTH EDUCATION	45	47	193	151	259	256
NATURAL & PHYSICAL SCIENCES (TOTAL)	46	59	150	149	108	109
SUBJECT NOT SPECIFIED	9	8	33	26	2	7
GENERAL SCIENCE	7	6	15	24	4	4
BIOLOGY	23	37	84	83	74	70
CHEMISTRY	5	5	14	14	24	20
PHYSICS	2	3	4	2	4	8
SOCIAL STUDIES(TOTAL)	222	220	383	398	231	275
SUBJECT NOT SPECIFIED	76	63	98	168	45	68
HISTORY, GEOGRAPHY	94	112	166	121	133	143
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	52	45	74	54	35	46
OTHER SOCIAL STUDIES	...	...	45	55	18	18
TRADE, INDUSTRY, TECHNOLOGY	10	7	...	...	24	25
OTHER SECONDARY SUBJECTS	191	...	4	9	73	88
SECONDARY-SCHOOL TOTAL	934	791	1,592	1,647	1,592	1,690
UNGRADED						
SPECIAL EDUCATION	107	73	46	41	70	51
LIBRARIAN	...	...	39	30	8	...
GUIDANCE COUNSELOR	61	61	13	33	88	92
SCHOOL PSYCHOLOGIST	...	...	...	...	...	...
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	1	4	...	...	...	...
OTHER UNGRADED	...	...	6	...	...	12

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	TENNESSEE		TEXAS		UTAH	
	1971	1970	1971	1970	1971	1970
ELEMENTARY-SCHOOL TOTAL	1,995	1,916	6,313	6,549	1,399	1,358
REGULAR INSTRUCTION	1,995	1,916	5,812	6,058	1,399	1,357
SELECTED SUBJECTS(TOTAL)	...	...	501	491	...	1
ART	...	...	121	126	...	...
FOREIGN LANGUAGES	...	...	...	...	...	1
MUSIC	...	...	178	183	...	...
PHYSICAL & HEALTH EDUCATION	...	...	202	182	...	...
SECONDARY SCHOOL						
AGRICULTURE	52	33	225	274	22	23
ART	110	100	286	249	69	56
BUSINESS EDUCATION	326	316	754	780	128	111
DISTRIBUTIVE EDUCATION	9	1	6	...	10	10
ENGLISH LANGUAGE ARTS(TOTAL)	727	661	1,828	1,792	307	314
ENGLISH	654	597	1,412	1,396	226	242
JOURNALISM	...	...	89	86	7	6
SPEECH AND DRAMATIC ARTS	73	64	327	310	74	66
FOREIGN LANGUAGES(TOTAL)	154	133	475	458	116	103
FRENCH	59	55	95	94	32	31
GERMAN	9	5	47	35	24	22
LATIN	12	5	16	14	...	...
RUSSIAN	1	...	...	...	2	1
SPANISH	73	67	313	313	57	49
OTHER	...	1	4	2	...	...
HOME ECONOMICS	290	270	728	787	179	179
INDUSTRIAL ARTS	93	72	332	312	90	83
JUNIOR HIGH SCHOOL(GENERAL)	...	...	...	...	...	...
MATHEMATICS	213	224	630	579	57	53
MUSIC	239	224	306	273	70	73
PHYSICAL & HEALTH EDUCATION	651	635	1,124	997	265	243
NATURAL & PHYSICAL SCIENCES (TOTAL)	386	377	653	475	97	94
SUBJECT NOT SPECIFIED	38	31	158	40	6	7
GENERAL SCIENCE	73	69	...	...	7	3
BIOLOGY	193	200	398	339	69	75
CHEMISTRY	51	54	71	78	7	4
PHYSICS	31	23	26	18	8	5
SOCIAL STUDIES(TOTAL)	1,163	1,125	1,605	1,699	325	315
SUBJECT NOT SPECIFIED	...	...	373	409	...	7
HISTORY, GEOGRAPHY	514	509	970	960	184	176
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	334	333	16	93	110	99
OTHER SOCIAL STUDIES	315	283	246	237	31	33
TRADE, INDUSTRY, TECHNOLOGY	5	5	...	...	1	...
OTHER SECONDARY SUBJECTS	66	63	...	...	...	...
SECONDARY-SCHOOL TOTAL	4,484	4,239	8,952	8,675	1,736	1,657
UNGRADED						
SPECIAL EDUCATION	71	56	1,048	592	98	91
LIBRARIAN	32	26	64	65	3	1
GUIDANCE COUNSELOR	8	7	...	...	30	27
SCHOOL PSYCHOLOGIST	6	6	...	...	7	6
SCHOOL SOCIAL WORKER	...	...	...	...	1	1
SCHOOL NURSE	...	...	...	...	...	...
OTHER UNGRADED	49	30	...	...	19	18

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	VERMONT		VIRGINIA		WASHINGTON	
	1971	1970	1971	1970	1971	1970
ELEMENTARY-SCHOOL TOTAL	315	380	1,794	1,637	1,932	2,029
REGULAR INSTRUCTION	304	364	1,781	1,625	1,597	1,619
SELECTED SUBJECTS(TOTAL)	11	16	13	12	335	410
ART	7	8	...	...	109	132
FOREIGN LANGUAGES	...	3	10	10	45	59
MUSIC	4	5	2	2	109	147
PHYSICAL & HEALTH EDUCATION	...	...	1	...	72	72
SECONDARY SCHOOL						
AGRICULTURE	4	...	36	30	14	17
ART	...	...	155	149	220	201
BUSINESS EDUCATION	41	26	210	183	130	138
DISTRIBUTIVE EDUCATION	...	...	131	102	...	...
ENGLISH LANGUAGE ARTS(TOTAL)	96	107	489	514	747	683
ENGLISH	88	105	459	492	630	597
JOURNALISM	...	...	...	1	17	10
SPEECH AND DRAMATIC ARTS	8	2	30	21	100	76
FOREIGN LANGUAGES(TOTAL)	37	24	181	157	171	191
FRENCH	21	16	77	71	62	69
GERMAN	3	2	15	4	39	44
LATIN	2	1	10	18	6	5
RUSSIAN	2	1	...	...	4	9
SPANISH	8	4	79	64	60	63
OTHER	1	...	...	...	...	1
HOME ECONOMICS	18	12	131	130	257	241
INDUSTRIAL ARTS	...	...	40	27	91	88
JUNIOR HIGH SCHOOL(GENERAL)	...	...	...	...	...	...
MATHEMATICS	34	25	245	220	170	162
MUSIC	5	7	159	143	127	78
PHYSICAL & HEALTH EDUCATION	54	22	342	321	410	390
NATURAL & PHYSICAL SCIENCES (TOTAL)	26	24	203	177	230	235
SUBJECT NOT SPECIFIED	8	2	2	8	22	30
GENERAL SCIENCE	4	8	36	22	15	19
BIOLOGY	11	12	124	118	144	129
CHEMISTRY	2	1	34	26	30	43
PHYSICS	1	1	7	3	19	14
SOCIAL STUDIES(TOTAL)	126	88	643	552	641	621
SUBJECT NOT SPECIFIED	56	58	189	117	197	187
HISTORY, GEOGRAPHY	49	29	351	362	347	353
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	4	1	30	33	97	81
OTHER SOCIAL STUDIES	17	...	73	40	...	...
TRADE, INDUSTRY, TECHNOLOGY	...	2	31	31	...	...
OTHER SECONDARY SUBJECTS	1	4	62	70	...	...
SECONDARY-SCHOOL TOTAL	442	341	3,058	2,806	3,208	3,045
UNGRADED						
SPECIAL EDUCATION	31	21	180	130	186	176
LIBRARIAN	...	...	47	56	4	4
GUIDANCE COUNSELOR	...	3	29	64	...	...
SCHOOL PSYCHOLOGIST	...	...	...	...	...	...
SCHOOL SOCIAL WORKER	...	...	1	1	...	...
SCHOOL NURSE	...	...	...	...	18	17
OTHER UNGRADED	...	10	19	13	516	260

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	WEST VIRGINIA		WISCONSIN		WYOMING	
	1971	1970	1971	1970	1971	1970
ELEMENTARY-SCHOOL TOTAL	1,096	1,054	3,425	3,046	140	147
REGULAR INSTRUCTION	968	963	3,291	2,947	140	147
SELECTED SUBJECTS(TOTAL)	128	91	134	99	...	...
ART	25	15	62	49	...	...
FOREIGN LANGUAGES	...	...	2	1	...	...
MUSIC	58	71	30	26	...	...
PHYSICAL & HEALTH EDUCATION	45	5	40	23	...	...
SECONDARY SCHOOL						
AGRICULTURE	11	10	59	50	6	17
ART	60	56	432	276	24	15
BUSINESS EDUCATION	158	137	168	139	17	17
DISTRIBUTIVE EDUCATION	...	...	35	17	5	1
ENGLISH LANGUAGE ARTS(TOTAL)	449	408	1,021	836	73	69
ENGLISH	383	343	838	695	64	55
JOURNALISM	8	3	6	4	...	...
SPEECH AND DRAMATIC ARTS	58	62	177	137	9	14
FOREIGN LANGUAGES(TOTAL)	61	57	297	281	19	12
FRENCH	33	28	113	104	5	2
GERMAN	5	6	56	45	4	4
LATIN	6	3	5	13	2	...
RUSSIAN	...	1	10	9	...	...
SPANISH	17	19	113	110	8	6
OTHER	...	...	...	...	...	...
HOME ECONOMICS	161	166	258	267	30	19
INDUSTRIAL ARTS	75	55	263	218	11	21
JUNIOR HIGH SCHOOL(GENERAL)	...	...	35	15	9	8
MATHEMATICS	130	128	302	224	26	14
MUSIC	109	101	289	238	12	12
PHYSICAL & HEALTH EDUCATION	480	425	548	431	54	29
NATURAL & PHYSICAL SCIENCES (TOTAL)	141	146	428	360	26	18
SUBJECT NOT SPECIFIED	...	...	39	30	4	1
GENERAL SCIENCE	1	3	81	64	1	2
BIOLOGY	109	115	235	199	21	15
CHEMISTRY	21	16	48	44	...	...
PHYSICS	10	12	25	23	...	...
SOCIAL STUDIES(TOTAL)	552	545	950	826	65	49
SUBJECT NOT SPECIFIED	552	545	184	153	58	49
HISTORY, GEOGRAPHY	...	...	586	495	6	...
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	...	...	116	96	1	...
OTHER SOCIAL STUDIES	...	...	64	82	...	...
TRADE, INDUSTRY, TECHNOLOGY	...	...	15	18	...	...
OTHER SECONDARY SUBJECTS	...	...	32	15	...	...
SECONDARY-SCHOOL TOTAL	2,387	2,234	5,132	4,211	377	301
UNGRADED						
SPECIAL EDUCATION	54	52	439	375	24	11
LIBRARIAN	21	21	24	19	...	1
GUIDANCE COUNSELOR	...	...	10	19	...	1
SCHOOL PSYCHOLOGIST	...	...	2	3	2	...
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	...	...	...	...	...	...
OTHER UNGRADED	...	6	124	134	...	...

TABLE B.–STATE AUTHORITIES WHO ARE MAJOR CONTRIBUTORS TO THE STUDY

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